





## EUROPEAN NEWS

## MINISTERS MEET TODAY TO TRY TO BRIDGE FINANCING GAP

## EC's room for budget fudging narrows significantly

BY QUENTIN PEEL IN THE HAGUE

SIX WEEKS ago, Mr Jacques Delors, the President of the European Commission, wrote a personal letter to the 12 EC heads of government spelling out the dire details of the Community's budget crisis.

By yesterday, only two of the leaders had bothered to reply—Mrs Margaret Thatcher, the British Prime Minister, who repeated her flat rejection of paying up an extra cash, and Mr Andreas Papandreu, the Greek Prime Minister, not normally known for his enthusiastic support of Community causes, who chose this occasion to give Mr Delors his solid endorsement.

## Appeal for independent Poland

By Christopher Bobinski in Warsaw

PROMINENT Polish intellectuals and opposition activists have called for their country's independence and respect for basic civil rights in an appeal issued before Pope John Paul begins his third papal visit here on June 8.

The 61 signatories, who represent a broad range of political opinion, include Mr Lech Walesa, the Solidarity leader, Mr Andrzej Gajdar, the film director, and Mr Richard Kucinski, the writer.

They met on Sunday in Warsaw to draft their appeal which is the strongest statement issued in Poland on the issue of the country's sovereignty by such a politically diverse group.

However, it does stress that relations must be maintained with both the Soviet bloc and Western countries and calls for the full implementation of the Helsinki Agreement which signals respect for Europe's present frontiers.

The group points to the continuing "conflict between the authorities and society at large," and expresses the hope that the Polish-born Pope's seven-day visit will "open new horizons."

None of Poland's basic problems can be resolved without ensuring "freedom to arrange the country's internal affairs, freedom from external pressure and equality in relations with other countries," it says.

"Poland must have the right to model its own economic affairs independently."

## Bonn to resist pressure for economic boost

WEST GERMANY will resist pressure at the coming seven-nation summit in Venice to follow Japan with a major package to stimulate its economy, West German officials said yesterday, Reuters reports from Bonn.

They agreed that Japan's announcement last week of plans to boost its economy with new government spending and tax cuts together worth \$42bn (\$26bn) would highlight West Germany, with its big trade surplus and sluggish economy.

The US wants both countries to take measures to increase consumer demand, hoping they will then export less and import more. That, they hope, might help the US narrow its huge trade deficit.

US officials spoke at the weekend of behind-the-scenes consultations with Chancellor Helmut Kohl with the aim of securing a quick pledge of action.

Bonn officials said it was virtually inconceivable that Mr Kohl would make concessions in Venice despite an economic downswing at the start of this year.

"There is just no room for manoeuvre," said one official, echoing statements by both Mr Kohl and Mr Gerhard Stoltenberg, his Finance Minister.

Mr Stoltenberg already has problems finding cash for tax cuts promised for 1990 and says his budget is stretched to the limit.

Mr Kohl will go to Venice only days after publication of figures expected to show the West German economy contracted in the first three months of 1987. But it rebounded in the second quarter and should grow by just under 2 per cent for the year.

The Bundesbank, West Germany's central bank, also seems averse to further economic pump-priming.

crisis—or at least postponing its effect from one year to the next.

Yet it is exactly because of all those previous exercises in fudging the Community budget, that this year's overspending is worse, and more difficult to deal with, than ever before.

Mr Delors is looking for slightly less than Ecu 5bn (\$3.5bn) to fill the financing hole in 1987. Even if he were to get that money, he would still need to raise the level of national contributions to finance next year's spending calculated on the most conservative estimates.

The Ecu 5bn is not all increased spending, but most of it is: farm spending is up by some Ecu 3.5bn, because of the need for higher export subsidies on farm products as the dollar's value has declined. But the Commission says that its proposals for price cuts, and an oil and gas tax, could save Ecu 1bn of that amount, leaving a net overspending of only Ecu 2.5bn.

To that amount must be added a deficit from 1986 of Ecu 820m, and a shortfall in the promised budget contribu-

treasures. It is a device which simply postpones the farm overspending from 1987 to 1988.

In addition, Mr Delors wants the 12 EC governments to make an "inter-governmental agreement" to provide a loan of some Ecu 1.5bn to Brussels, essentially to meet the shortfall in their previously-promised bud-

get contributions from customs duties and the like.

That at least is transparent, but it is the one bit which Mrs Thatcher has promised to block outright, almost certainly with West German support. As any decision on such an extra cash payment has to be unanimous, it means the idea is stillborn.

Yet the UK position is also full of apparent contradictions. Already this year, both Mr Michael Jopling, the Agriculture Minister, and Mr Nigel Lawson, the Chancellor of the

Exchequer, sanctioned a loan of more than Ecu 3bn—double the latest request—to offload EC butter stocks on the world market. The only difference is that the Ecu 3bn was fixed by changing the financial regulations to allow delayed repayment, a decision which did not require the sanction of all 12 national parliaments, whereas the inter-governmental agreement would require such embarrassing scrutiny.

Now the UK Government proposes to back Mr Delors in filling most of this year's shortfall by the expedient of delayed farm payments. Indeed, Mr Delors is seeking Ecu 2.8bn from sources, whereas Sir Geoffrey Howe, the British Foreign Secretary, says he should exploit it to the full Ecu 4bn available from a two-month's delay. Yet that too is no more than a loan by another name from the national treasuries to Brussels.

Finally, if the budget ministers fail to agree on any solution they can all support—and Spain, for example, says it will block any short-term debt which fails to resolve the EC's long-

term budget needs—then they will end up lending most of the money to Brussels, just as if they had agreed to it. What happens is that the European Commission simply overdraws on its accounts held at the central bank of each member state. And in effect, it is each national treasury which ends up funding that overdraft.

The only other logic to the UK position on the EC budget which British ministers have refused to spell out is the extent of cuts in the agriculture budget which their proposals would require.

Figures given by Sir Geoffrey in Brussels last week call for savings of Ecu 500m, in addition to the savings of Ecu 1.1bn already proposed by the Commission. But Sir Geoffrey and his colleagues are adamantly opposed to the Commission's oil and gas tax, which is supposed to contribute about half the Ecu 1.1bn. The British cut in agriculture, to make ends meet on present estimates, should amount to some Ecu 2.1bn, or something approaching 10 per cent of the current farm budget.

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## Disputes in French coalition expose Chirac's weaker grip

BY DAVID HOUSEGO IN PARIS

THE WEAKENING hand of Mr Jacques Chirac, the French Prime Minister, over his government is being revealed by a succession of disputes within his coalition.

In an interview published yesterday by Mr Francois Leotard, the Minister of Culture, announced that he would not support Mr Chirac in the first round of the presidential election next May. Mr Leotard's declaration coincided with a fresh call from Mr Chirac over the weekend for unity within the coalition.

Though Mr Leotard, one of the younger members of the Government and leader of the free market Parti Republicain, would in any case have been unlikely to have supported Mr Chirac in a first round play-off among parties of the right, his statement as a cabinet minister is bound to be seen as further weakening Mr Chirac's authority.

His declaration also follows a challenge to Mr Chirac's leadership from other younger members of the Government—including Mr Michael Noir, the External Trade Minister, and Mr Alain Juppé, the Budget Minister—who were unhappy about Mr Chirac's ambiguous stance towards the "extreme right-wing National Front. After initially trying to silence them for their disloyalty, Mr Chirac subsequently made a major speech distancing himself from Mr Jean-Marie Le Pen and his racist views.

Yesterday the Prime Minister's office also disclosed that Mr Chirac had had a rare meeting last week with Mr Raymond Barre, the former Prime Minister, and likely to be his main opponent to obtain the candidacy of the right in the presidential election. No details were provided of the meeting between the two men who are divided over their views on "cohabitation" or economic policy, among other issues. But the silence is likely to fuel speculation about their differences.

The mushrooming of these disputes stems in part from the current belief that the right will lose next year's presidential contest to President Francois Mitterrand. A defeat of the conservative parties would inevitably force a major shake-up on the right in which the careers of both Mr Chirac and Mr Barre would be at stake.

An opinion poll published over the weekend showed that on current voting patterns Mr Mitterrand would be a clear victor in both the first and second round of the vote. In the second round the Express-Louis Harris poll gave him 55 per cent of the vote against Mr Barre and 56 per cent against Mr Chirac. Mr Chirac was, however, marginally ahead of Mr Barre in most scenarios of a first round contest.

Mr Barre is thus the guest this morning on an hour-long radio programme in which he has the difficult task of advancing his own presidential claims while not being seen to weaken further the Government.

Likewise, Mr Leotard's party meets in congress next weekend to define its own platform for the presidential election. If Mr Leotard cannot realistically hope to be a candidate in 1988, his belief is that his party can have a strong voice in any right-wing administration that might be formed after the election.

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Mr Chirac: challenge to his leadership.

In spite of their differences, Mr Chirac and Mr Barre have a common interest in minimising the impact of Mr Le Pen, the National Front leader, who is currently given around 10 per cent of the vote and is thus one of the major factors jeopardising the chances of the main conservative candidate.

They also have a common interest in seeing that a first round play-off, the right's supporters favour, does not take place. The right's candidate in the second round, it was the failure of Mr Chirac to rally his supporters to Mr Valéry Giscard d'Estaing in the second round of the 1981 election that allowed Mr Mitterrand to seize the presidency.

Supporters of Mr Chirac believe that as Prime Minister he stands to gain in the coming months from his current stance of maintaining a quiet and steady hand on the tiller. The public opinion polls in part substantiate this by showing a small rise in his popularity after the strikes and the shelving of part of his legislative programme in the winter.

It is currently Mr Barre who is suffering in the polls from being identified with criticism of government policies that contribute to Mr Mitterrand's climb in the polls.

But against this view, Mr Chirac could have more problems in the coming months as his rivals on the right begin to assert their own candidacy. Mr Barre is thus the guest this morning on an hour-long radio programme in which he has the difficult task of advancing his own presidential claims while not being seen to weaken further the Government.

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## Brussels to draw up new steel closures

BY WILLIAM DAWKINS IN BRUSSELS

EC INDUSTRY ministers yesterday gave the European Commission the go-ahead to come up with fresh steel closure plans by the end of July. This means that member-states (though not all) have at last accepted formally that an eight-month-long struggle by Europe's "club" of 22 big integrated steelmakers to agree on adequate voluntary production cuts has ground to a halt.

It comes in the face of yesterday's strongly argued plea by Mr Dieter von Wurzen, State Secretary in Bonn's Economics Ministry, that Europe should be encouraged to keep looking for more cuts.

Eurofer told the Commission last month that it could see no chance of obtaining agreement on closing up to 30m tonnes of over-capacity which the Brussels authorities say is needed to bring supply into line with demand. The steel



## US to request British aid for Gulf naval role

BY LIONEL BARRER IN WASHINGTON

THE US is to make a formal request to the British Government within the next few days to support the expanding American naval role in the Gulf.

The request is likely to be limited to a nature covering exchange of information and diplomatic support, particularly relating to US interest in gaining broader access to bases in the Persian Gulf.

Mr. Margaret Thatcher, the British Prime Minister, is said to be aware that too much emphasis for the expanding American presence in the Gulf could prove damaging to her attempt to win a third term in the current election campaign.

British officials are playing down future UK involvement in the region and stress that any arrangements with the US will be "through well-established channels and on an ad hoc basis."

"We do not think that the risk (to shipping) is any greater than before," said one British official. He added that the UK had increased the number of warships on patrol in the Gulf from two to three at the end of last year, responding to Iran and Iraq attacks on oil tankers and other shipping.

Last week, President Reagan approved a plan whereby American warships would escort 11 Kuwaiti tankers flying under the US flag. The escort plan is aimed partly at countering Soviet naval presence in the Gulf, but will not be carried out until the Kuwaiti ships are "refueled," likely to take at least two more weeks.

US officials said that the security plan was not dependent on outside military support and is "self-standing." But

President Reagan is anxious to gain diplomatic support from the UK and other Western allies to reassure Congressional fears that the Administration is being sucked into the Iran/Iraq war without thought or consultation.

The UK has three warships in the area: HMS Active, a 2,400 tonne Type 21 frigate equipped with Sea Cat and Exocet missiles, HMS Broadsword, a 3,500 tonne Type 22 frigate with Sea Wolf missile defence system, and HMS Cardiff, a 3,500 tonne missile destroyer equipped with Sea Dart anti-aircraft missiles.

British officials will not discuss the rules of engagement if an Iraqi or Iranian fighter or patrol vessel were to attack, or how they would respond — other than the normal assistance under maritime law — if a US vessel was sunk.

The UK, whose naval involvement in the Gulf goes back to the 19th century, has long-standing influence with Arab states. The US is interested in expanding its access to these waters, ports and air strips, to provide more effective air cover to its escort ships. But countries such as Oman and the United Arab Emirates have resisted such approaches in the past.

The New York Times reported yesterday that the US frigate Stark failed to execute a standard air defence manoeuvre when she was attacked by two Exocet missiles fired by an Iraqi aircraft in the Gulf. This meant that the vessel's sophisticated electronic defence system was unable to detect the attack in which 37 US sailors died, the newspaper said.



Mr. Malcolm Baldrige

## Baldrige to look into 'dumping' allegations

By Nancy Dunne in Washington

MR. MALCOLM BALDRIGE, the US Commerce Secretary, has signalled a readiness, under strong pressure from Congress, to work with the US auto industry to investigate allegations that Japanese companies may be dumping compact pick-up trucks in the US market.

The Commerce Department's International Trade Administration (ITA) has already said that there is insufficient evidence to charge Japanese manufacturers with selling trucks in the US at less than the cost of production.

However, the US industry is insisting that while the yen has gained 65 per cent in value against the dollar, prices of compact pickups have risen by only 15 per cent. A trade analyst for the United Auto Workers union said that a large profit margin could account for some of the difference, but still prices could be expected to have jumped 35 per cent in 40 per cent.

In a letter to Senator Donald Riegle and Congressman John Dingell, both of Michigan, Mr. Baldrige said that figures sent to him by the two legislators "indicate that a specific model of Japanese pick-up truck is possibly being sold at less than fair value in the United States."

Five Japanese producers sell pick-up trucks in the US: Mazda, Mitsubishi, Nissan, Isuzu and Toyota. Toyota is considered to be the lowest cost producer and, therefore, the least likely to be dumping. However, some American trade analysts say there is evidence that even Toyota is dumping trucks along with the other manufacturers in an effort to delay the effects of the dollar's depreciation.

Mr. Baldrige suggested that representatives of the US industry meet with its staff to discuss the factual evidence available regarding unfair pricing practices and resulting injury.

## Saab-Scania wins \$100m order

By Sara Webb, Stockholm Correspondent

SAAB-SCANIA, the Swedish aerospace and automotive group, yesterday won an order worth about \$100m from Metro Airlines of the US for 16 of its regional airliners.

The Saab aircraft division plans to start supplying the Dallas-based Metro Airlines with the first of its new generation SF 340 aircraft next month, and the remaining 15 aircraft are due to be delivered by April 1988. In addition, Metro Airlines has signed an option for up to 15 more SF 340 aircraft.

The aircraft are due to be operated by Metro Airlines' subsidiaries and will initially replace the Convair 580 aircraft currently used by the Dallas subsidiary. The company operates three major hub and feed networks in Dallas, Atlanta, and San Juan, and carried over 1.5m passengers in the last year.

Metro Airlines is a new customer for Saab, which greeted the order as a "breakthrough in the US market." Saab has sold over 100 SF 340 aircraft to customers such as Sair of Sweden, Crossair of Switzerland, Comair of Canada, and Air Midwest of the US, but the Metro agreement is the largest single order for SF 340 aircraft that Saab has received to date.

The SF 340 is a 30-40 seater pressurised civilian plane, which was jointly developed by Saab and Fairchild Industries of the US — though Fairchild opted out of the project on November 1985. According to Saab, the SF 340 has captured about 30 per cent of the regional airliner market.

## David Gardner reports on Latin American moves to lend Nicaragua a helping hand Sandinista pleas revive peace plan hopes

LATIN AMERICA's major nations are trying to put together an ambitious plan to aid left-wing Nicaragua and wean it away from its heavy dependence on the Soviet bloc now that Moscow has announced its intention to reduce vital oil supplies to the Central American state.

The Latin American initiative, it is hoped, will help settle the conflict between Nicaragua's ruling Sandinistas and the Reagan Administration, which for six years has backed right-wing Contra rebels in a proxy war which Latin leaders believe could touch off a regional conflagration.

The plan, first mooted by President Raul Alfonsín in August 1985, has been revived in response to pleas from Sandinista emissaries despatched to the region's capitals throughout May. They are seeking the economic support which they say the Soviet Union will no longer guarantee, according to senior Latin American government officials and diplomats.

Dr Sergio Ramirez, the Nicaraguan vice-president, for example, told Mexican leaders that Nicaragua would run out of oil by June 15, while Commandante Bayardo Arce, a member of the nine-man collective leadership of the Sandinistas, is understood to have carried the same message to Buenos Aires.

The peace plan is viewed by senior Latin American officials and some European diplomats with a shade of optimism last glimpsed just before the bilateral negotiations between the US and Nicaragua — a series of nine meetings promoted by Mexico — collapsed at the end of 1984.

Though the Sandinista request has centred on its urgent oil needs, a wider scheme is being examined by the countries approached, which are the original and expanded Contadora Group nations (Argentina, Brazil, Colombia, Mexico, Panama, Peru, Uruguay, and Venezuela).

This contemplates a system of balance of payments support, with perhaps Argentina providing grains, Mexico shipping oil, and so on.

All the countries involved — themselves under financial pressure with a collective foreign debt of \$345bn — appear to be proceeding with caution, unwilling to be stamped into a short-term bail-out.

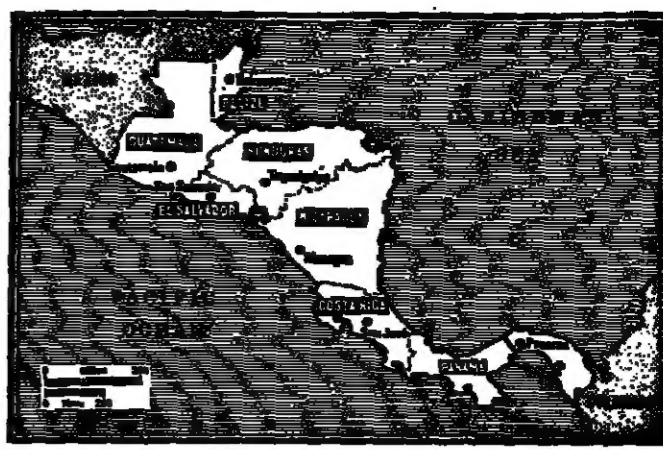
Mexico, with which Nicaragua has an unpaid oil bill of around \$600m, says it is willing to play a full part in a genuinely Latin American initiative to rebuff Nicaragua, provided this is part of an attempt to find a long-term overall solution to the latter's conflict with the US and, by extension, to the whole Central American imbroglio.

President Miguel de la Madrid is understood to have told a group of Mexican and

Emissaries are seeking the economic support which they say the Soviet Union will no longer guarantee

Latin American officials and intellectuals at a private dinner on May 14, where the issue was discussed, that "the problem is not oil or June 15. After that there will be July 15 and August 15... and will the underlying conflict be any nearer resolution?"

Nicaragua, despite its original intent to "diversify dependency," relies on the Eastern bloc and the Soviet Union in particular, for all its arms, practically all its oil, and balance of payments support sufficient to stave off outright economic collapse — a more real threat to the survival of the Sandinista regime than the Contras. In February, accord-



ing to reliable Western diplomatic reports, Nicaragua ran out of foreign exchange.

Though Moscow made clear to Managua from the outset that it would not incur the economic and political costs of "another Cuba," the terms of its arrangement with Nicaragua until recently have been vague. Six months ago, a senior Nicaraguan economic official confidently told the FT: "We provide good, relatively cheap, nuisance value without the costs of being integrated into Comecon as Cuba is. They'll cough up arms, as long as they're not too sophisticated, and all the oil — and without that this is sunk — but we all know that if there's a real war they won't turn up."

Since then, senior Latin American officials say, Moscow has applied a quota system similar to the restrictions it has long placed on Cuba.

Senior Latin American officials see the Soviet move as part of a pattern of signals from Moscow intended to take some of the heat out of regional conflicts involving the superpowers, from Afghanistan to Kampuchea.

"The Soviets back a Latin American solution," these officials say, "... and such a

solution might prove useful to the US."

All previous attempts at "Latin American solutions" — notably the two drafts of Contadora's regional peace treaty — have been viewed at best as insufficient and at worst with outright hostility by the Reagan Administration. Latin American officials believe this plan might get a better reception for a number of proportionately intertwined reasons.

The Soviet action appears to signal clear limits to its interest in Central America and its unwillingness, as one Western diplomat put it, to "raise the international stakes on behalf of Nicaragua." It certainly opens up a gap into which Latin America and, eventually, other potential patrons such as Western Europe, Canada, and even possibly the US could step.

Were this to happen, it would clearly involve as *quid pro quo* the exercise of political restraint by the Sandinistas and their co-operation in seeking a regional settlement.

Nicaragua has cautiously welcomed the latest regional peace attempt put forward by President Oscar Arias of Costa Rica (a US ally and the only

conventional liberal democracy in Central America), due to be thrashed out on June 25-26 in Guatemala at a summit of Central American presidents.

The Sandinistas have left on the table their detailed arms reduction offer made after the last such summit a year ago, along with their offer at the last but no "exporting the revolution".

In the past the Reagan Administration has insisted that the Sandinistas must negotiate with the Contras and hold new elections. But the fact is that the Contras, even in their beefed up, middle-tech guise and flush with \$100m approved by Congress, remain an ineffectual rabble, and the unpalatable fringe mixture of scandal and ridicule could make it very difficult for Mr. Reagan to win the Contras a further

Though the request has centred on Managua's urgent oil needs a wider scheme is being examined by the countries approached

\$105m in September, much less step up direct US military involvement.

Finally, the Sandinistas have municipal elections scheduled, last year's all-Central American summit anticipates elections to a regional parliament next year (Mr. Reagan's last) and the Arias plan envisages — after simultaneous ceasefires in all the war-torn countries and dialogue with "unarmed internal opposition" — simultaneous election in all five countries. In short, if the will is there — a very big "if," since until now it clearly has not been — then peace may all come down to a question of re-packaging.

## Argentine pay deal keeps incomes policy intact

BY TIM COOKE IN BUENOS AIRES

AFTER WEEKS of dispute, agreement was reached this week between the Argentine economy and labour ministries over the course of incomes policy.

An across-the-board 5 per cent wage increase is to be paid as of this month to compensate partially for the erosion of real incomes by inflation in recent months, a formula which was initially rejected by Mr Carlos Alderete, the Labour Minister, who has the backing of the powerful General Confederation of Labour.

The trade unions have been pressing for a more substantial increase, on the basis of a minimum rise of 30 Austral for the lowest wage-earners, which would serve as baseline for pro-rata increases throughout the pay scale. An economy ministry official said last week that to have acceded to the unions' demand would have "signified a very major pay increase, with strong inflationary effects."

The government's economic team seems to have maintained its incomes policy on track, despite earlier fears that the appointment of a trade union leader to head the labour ministry last April would lead to a collapse of the government's strategy to keep down demand while trying to deal with longer-term structural problems on the supply side of the economy.

Union acquiescence to the pay increase seems to have been achieved on the basis of the government agreeing to send a new package of labour law reforms to the Congress this week, which will clear the way for a return to free collective bargaining between employers and unions, and return the control of welfare funds to the unions.

Government control of pay increases and union funds was introduced during the military regime of 1976-83 and has been maintained by the present government.

## Jamaica boosts growth

BY CAMUTE JAMES IN KINGSTON

JAMAICA RECORDED an annualised growth rate of 8 per cent in the first quarter of this year but does not expect to maintain this level for the rest of the year, according to Mr Edward Seaga, the Prime Minister and Finance Minister.

This follows a growth rate of 2.3 per cent last year and forecasts by the Central Bank that the economy would grow this year by 4 per cent.

"We are not saying that we can keep this up for the whole year," Mr Seaga said. "We are not even saying it is desirable to keep it up because we run

the risk of overheating the economy. But it shows tremendous results and improvements in our exports and in other areas."

Dr Headley Brown, governor of the Bank of Jamaica, said the growth was the result of a 15 per cent increase in the value of exports in the first quarter of the year. The increased earnings came mainly from bauxite, which is the major commodity export, and from tourism.

The Prime Minister's announcement has added fuel to local party political debates and indications that he may soon call a general election.

## Caribbean unity move

BY CAMUTE JAMES

THE GOVERNMENTS of seven Eastern Caribbean islands have agreed to create a single nation with indications that a formal federation could begin in two years after a referendum before the end of this year.

The English speaking islands — St Vincent, St Lucia, Montserrat, Dominica, Grenada, Antigua and St Kitts, which make up the organisation of Eastern Caribbean States — a trade group formed in 1982, have a population of 600,000 people.

The decision to move towards a political union followed several months of statements supporting a federation particularly by Mr John Compton and Mr James Mitchell, Prime Ministers of St Lucia and St Vincent.

The proposal will be discussed early next month when the leaders meet in St Lucia for the annual summit of the Caribbean Economic Community. Mr Mitchell however is already advocating a referendum in the seven countries before the end of this year.

## Official's ozone remark raises storm

BY NANCY DUNNE IN WASHINGTON

A REMARK by Mr Donald Hodel, US interior secretary, has set off a furore among environmental groups unequipped since the tenure of President Reagan's first and most controversial interior secretary, Mr James Watt.

At a meeting of the President's domestic policy council last week, Mr Hodel recommended against signing an international agreement to reduce chlorofluorocarbons in the atmosphere. The chemicals are believed responsible for the

depletion of the earth's ozone layer.

Instead, Mr Hodel said, the government might urge people to don hats, sunglasses and tanning lotion to prevent skin cancer that might result from increases in ultra-violet light

The environment protection Agency has denounced Mr Hodel's suggestion as "not serious." The White House has not said yet whether or not the President, himself a victim of skin cancer, thinks the pro-

posal a joke.

Environmental groups, which attacked Mr Watt and his successors for their "pro-development" policies on government lands, have called for Mr Hodel's resignation. Mr Hodel has retreated under the onslaught, saying his scheme is only one of several options.

To the satisfaction of environmentalists, the State Department has been taking the lead in pursuing an international agreement to cut chlorofluorocarbon levels.

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At our semiconductor facility in East Kilbride, Scotland, Motorola's already high level of quality improved by a factor of ten during the last four years! And, we now have customers who register zero defects at their incoming inspection.

We are proud of the progress we have made in terms of programmes, equipment and methods, but, after all, it is the people of Motorola who make them work. No quality control programme can ever succeed without a genuine appreciation of the importance of high quality goods in the marketplace, by the people who make that product.

But perhaps the ultimate answer to the question posed at the start is this:

It is not only possible, but with today's level of worldwide competition, it is also imperative.

Motorola is one of the world's largest electronics companies. We do business on five continents. And wherever we are, we all share a deep dedication to the service of our customers in voice and data communications, computers, semiconductors and components for defence, aerospace, automotive and industrial electronics.



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Portrait of Melanie and Martin Lent by Patrick Proctor

## AMERICAN EXPRESS PROFILES OF SUCCESS

It's the kind of phrase that can be embarrassing. "In time", Martin Lent of Pamplemousse says to new employees "You'll learn to be a Pampleperson".

But in the cheerful bedlam of their purpose-built offices, where clothes and computer terminals vie for the attention of an astonishingly dedicated staff, it seems merely accurate.

"It's really exciting here; it's mad" the Production Director explains as she hurries past, leaving the echo of an engaging smile.

Martin's quiet, careful voice takes up the point; "There is a Pamplemousse kind of person. I choose people I feel will respond to our challenge".

It is a policy that has helped take a husband-and-wife concern into the international big time in just five years.

In February 1982 Melanie Lent was on a grapefruit diet. So when she and Martin wanted a name for their new fashion company, the rather charming french word for grapefruit seemed as good as any. 'Pamplemousse' they duly became.

It wasn't a very big company. In fact, it was the two of them working over a dry cleaners in Kilburn, North London. She was 23. He was 27. She designed and made up the samples. Together they sold the results.

But if the operation was simple, it was never naïve. Melanie and Martin had spent months identifying a gap in the market and working out how they were going to fill it.

"There was no one providing the sort of fashion I felt young people wanted to wear. They wanted to be able to buy a new top, wear it a few times and maybe chuck it away."

"Clothes like that did exist, but they weren't exciting, not what 18 year-old girls wanted. The designery look was only at the top end of the market - too expensive." Melanie's flair as a practical designer has always been the crucial company asset.

Well, flair is great. Planning essential. But it takes more than that to survive the ambushes that lie in wait for emerging companies.

"We took care of every detail ourselves - and we were lucky. Once when we were up against a completion date on a big order the Customs went on strike and wouldn't release the clothes. Martin went down there himself with a lorry, somehow badgered them into releasing the stuff and drove across London like a lunatic to deliver them. He got there at 5 minutes to 5. The completion time was 5 o'clock. If there'd been more traffic on the road, the Pamplemousse story would have ended there and then."

The story did not end. Pamplemousse designs perfectly fitted the gap they were aimed at. More and more shops wanted to sell them. More and more fashion buyers wanted to see what Melanie would come up with next.

By the beginning of 1987, Pamplemousse's annual turnover had topped £14 million. Four years earlier Melanie and Martin had celebrated the dizzy success of turning over £200,000.

In October last year the first branch of 'Anonymous'

opened in London. Selling clothes designed and exclusively supplied by Pamplemousse, this joint venture with Sir Terence Conran's Storehouse group looks set to make Pamplemousse the biggest and most successful fashion house in Britain.

Forward-thinking is still very much in evidence. The ridiculously hard-working and cheerful staff are at the moment coping with the installation of a large IBM computer. It should allow them to keep up with future growth, and ahead of the opposition, for several years. And it frees people to do what they're good at.

In the same way, American Express Company Cards have been part of the Pamplemousse scene for several years.

"We do a lot of travelling and a lot of entertaining; it's not fair to ask people to use their own finance, and cash floats would be silly. The Cards are a way of showing how we trust people and at the same time help us to keep track of expenditure. American Express have a system for small businesses that seems to work for us. It's one less thing to worry about. And believe us - we've got enough of those!"

If you ask Martin and Melanie separately to account for their success, you get almost identical answers - which may itself explain much of that success.

'Handwriting' is a word they both choose for the flavour of the Company. Melanie uses it of the design style she has created. For Martin it describes the working atmosphere.

"If you want the best out of people you've got to treat them properly. There aren't really any secrets here. Everyone knows everything and everyone's part of everything."

Martin picks up a bright yellow pen from the desk and waves it to emphasise his point. Down the side it says 'A Pamplepen'.

For more about Pamplemousse, ring 01-387 8797. For more about the American Express Company Card and its system for Small Businesses, ring 0800 626171 (toll free).



## WORLD TRADE NEWS

## Westland steps up call for help with 'copter bid

BY MICHAEL DONNE, AEROSPACE CORRESPONDENT

WESTLAND HELICOPTERS of Yeovil is to intensify pressure on the UK Government for help to win a major order for 12-14 Lynx helicopters in Brazil, against stiff competition from the French Adipatiale Dauphin aircraft.

The UK company recently announced redundancies of about 2,000 workers because of a shortage of work.

Westland believes that the French bid is actively supported by the French Government with export credit finance. But because of French subsidies to its aircraft industry, the UK Export Credits Guarantee Department has refused to offer assistance for sales to that country.

"This order is very important indeed," said a company spokesman yesterday. "If we lost it we would be losing not just a prospective order, but an existing customer."

"We are the preferred solution as the Lynx is a superior aircraft to the French Dauphin, but because of Brazil's financial situation the French bid is now the more appealing."

Spain's state-owned airline Iberia could spend up to Pta 140bn (\$750m) on updating its ageing fleet of McDonnell-Douglas DC-9s and Boeing 737s, an Iberia spokesman said yesterday. Reuters reports from Madrid.

A decision on the replacement for these aircraft was expected in the second half of June, he added.

The airline is weighing up offers from five manufacturers — Boeing, McDonnell-Douglas, Airbus Industrie, British Aerospace and Fokker.

"What we hope is that we might be able to persuade the Government to provide some form of export credit guarantee in this instance and thus find a solution to the problem." As already reported, there is a tacit agreement among Western creditor nations not to offer credit assistance for further exports to Brazil in the light of that country's economic situation, which the Westland spokesman believes the French are now breaching.

## Argentina and Brazil link up for new airliner

BY MICHAEL DONNE

Embraer, the Brazilian aerospace manufacturer, is joining forces with Fabrica Argentina de Material Aeronautico (FAMA) of Argentina to develop a new 18-seat pressurised regional turbo-prop airliner, called the CBA-123 (for Co-operation, Brazil-Argentina 123).

Development cost is put at \$300m (\$200m) including tooling for quantity production, divided as to two-thirds subscribed by Embraer and one-third by FAMA.

There will be two assembly lines, one in each country, and first deliveries will be in the early 1990s, at a price per aircraft of between \$3.2m and \$3.5m.

Embraer had originally signed an agreement with Short Brothers of Belfast for collaboration in the next generation of commuter and regional airliners to replace the existing Brasilia and Shorts 360.

That agreement was terminated by mutual consent, however, with Embraer moving closer to Argentina, and Short Brothers linking with de Havilland Aircraft Company of Canada.

Short Brothers and de Havilland are expected to announce a new commuter and regional airliner of their own at the forthcoming Paris Air Show.

Both programmes are the result of market studies which have shown that fast changes are occurring in operators' and passengers' expectations of aircraft, with regard to efficiency, speed, reduced vibration, and noise levels as well as improved overall comfort.

The new Embraer FAMA aircraft will feature a shortened fuselage from the earlier Embraer Brasilia, with two 1,300 shaft horse-power engines installed at the rear of the fuselage, driving "prop-fan" type engines.

The CBA-123 will carry 19 passengers over distances of 640 nautical miles at speeds of about 300 knots.

Embraer and FAMA hope to win a 20 per cent share of the 18-seater regional airliner market, based on an average demand for 125 aircraft in this category every year world-wide over the rest of this century.

This, it is claimed, coupled with sales in the internal markets of both countries, will make the new CBA-123 economically viable.

## Japanese may seek end of EC copier tariff

SEVEN Japanese manufacturers may soon seek withdrawal of anti-dumping tariffs the European Community imposed on their copiers last February, AP-DJ reports from Tokyo.

The seven makers—Ricoh, Canon, Minolta Camera, Matsushita Electric Industrial, Sanjyo Electric, Sharp and Konishiroku photo industry are considering filing a protest—with the EC Court of Justice, to demand withdrawal of the tariffs.

An official of one of the companies said, the seven manufacturers would decide whether or not to seek the removal of the tariffs by June 8, the deadline for such an action.

The EC imposed the duties, ranging from 7.2 per cent to 20 per cent on the copiers produced by 12 Japanese manufacturers following a claim by five Community-based copier makers that the Japanese were selling copiers under fair market value.

The US Commerce Department has ruled Taiwan has been exporting rectangular welded steel pipe and tube to the US market at unfairly low prices, AP-DJ reports. If the International Trade Commission decides the imports are injuring domestic producers, penalty duties will be imposed.

Loans have become Jakarta's mainspring for growth, John Murray Brown reports

## Indonesia calls the aid donors' bluff

INDONESIA IS said to be where aid and the domino theory met. Since the height of the Vietnam war in the mid-Sixties, this sprawling archipelago with its 13,000 islands spread as wide as the US has been the target for over \$300bn in assistance from Western donors.

At a meeting next week in The Hague, members of the Inter-Governmental Group on Indonesia will once again weigh up the strategic and commercial imperatives for supporting the staunchly anti-Communist military-backed Government of President Suharto, which seized power 20 years ago in the wake of a failed leftist coup.

The group, which covers 16 donor nations including the US and Japan with the World Bank, the International Monetary Fund and two other multilateral lending agencies, pledged \$2.5bn in the 1986 in grants and soft loans tied to product exports from the lending country.

Unlike previous years, next week's gathering promises to be anything other than routine, with donors asked to provide local Indonesian costs on bilateral aid projects—amounts normally covered by the budget.

According to Mr Pieter Bukman, Dutch Minister for Development Co-operation and this year's group chairman: "Development has one purpose, to make itself superfluous." In

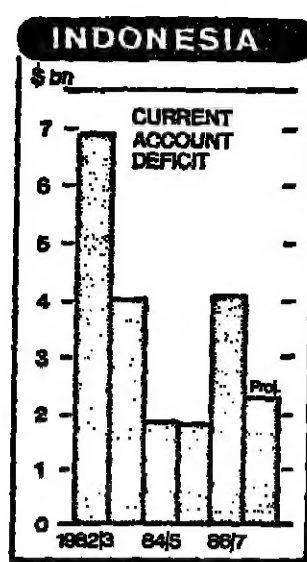
practice the running dispute between Government and donors, and more particularly between foreign commercial banks and Bappenas, the Indonesian agency charged with approving finance for any project, suggests rather more is at stake.

With salaries in the public sector now cut in real terms and taxes increased, foreign aid is increasingly perceived by the Government as the main spring for growth in the economy. Furthermore, with officials still reluctant to resort to domestic borrowing (where interest rates are kept high to stem capital flight) contributions from donors now provide 70 per cent of the capital account on the budget.

In some ways, Indonesia is calling the donors' bluff. Many face budgetary constraints of their own. Some might even argue there are countries more deserving of assistance elsewhere.

Nonetheless, without such counterpart funds, the loan pipeline seizes up and projects are shelved. The World Bank, the country's largest donor, is urging the group to meet Indonesia's latest demands. The country is facing its worst recession in 10 years, the result of falling oil earnings, traditionally the main source of foreign exchange.

"There is a strong case for special assistance," the bank argues in its latest confidential report. "This will provide an important signal to



'Development has one purpose—to make itself superfluous.' In practice, the running dispute between Government and donors suggests rather more is at stake

Asia. The IMF also agreed a \$600m credit last month under the fund's compensatory financing facility, normally reserved for non-oil commodity producers suffering deteriorating terms of trade. Both loans are fast disbursing and extended on semi-concessional terms to shore up the balance of payments. Mr J. B. Sumarlin, the Minister for Development Planning who heads Bappenas, has missed few opportunities to defend the Government's strategy. By maintaining fiscal austerity, tight monetary policy and a cushion of undistributed credits, the Government in the past has been able to keep inflation to single figures and tap the capital markets as required.

But the commercial banks—particularly those in the US

and Europe—are increasingly wary of extending loans to a country whose service of its \$380bn foreign debt this year will absorb 41 per cent of its export earnings. Despite efforts to curb the current account deficit—officially targeted to fall to around \$2.5bn in 1987-88 from \$4.1bn last year—bankers say "the risk perception is hardening."

Indonesian debt in the secondary markets is now trading heavily discounted to its face value. More worrying for a government keen to diversify its sources of finance has been the overwhelming predominance of Japanese banks on recent issues—seemingly the only institutions willing to take on Indonesian paper.

Against this background, next week's meeting of donors in The Hague assumes a growing importance. Japan has already signed a \$900m united soft loan to finance local rupiah costs on World Bank projects—a move in part aimed to deflect criticism that Japan's aid is used to bolster its own exports. But apart from a token F1.50m (\$16m) from the Netherlands, the former colonial power, there is as yet little sign that other donors like the UK, France or West Germany will follow suit. Intriguingly, commercial bankers are only too happy to underwrite soft loans, which earn a healthy 1 per cent

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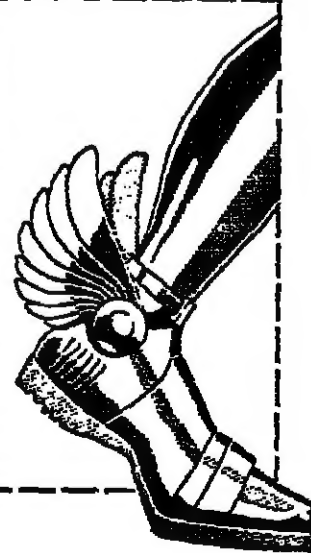
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## Shipyard plan puzzles maritime community

BY BOB KING IN TAIPEI AND KEVIN BROWN, TRANSPORT CORRESPONDENT, IN LONDON

A SHIPPING company's plans to spend up to \$1bn (\$715m) to build a shipyard at a time when shipbuilders all over the world are facing closure because of overcapacity is puzzling the world maritime community.

Evergreen Lines of Taiwan plans to construct a yard to build up to four big container-ships a year for its own use.

True to its reputation for secrecy, Evergreen has refused to discuss the details of its proposals, but has clarified its motives—providing strong criticism from some sectors of the industry.

The shipping financier Mr Boris Nachamkin, managing director of Bankers Trust, for instance, claimed Evergreen's proposals would "certainly contribute to the delay in the recovery of the entire shipping industry."

Mr Y. F. Chang, chairman of Evergreen, responded with a statement suggesting that Mr Nachamkin had misunderstood the nature of Evergreen's proposals. But he gave no clues to the timing of the announcement, or the strategy behind it.

What is known is that Evergreen approached Taiwan's Industrial Development Bureau early last month seeking help in obtaining 4,800 acres of land, together with whatever soft loans and other incentives were available.

At this stage, the proposals appear to have been for production of large yachts and engines, with no mention of shipbuilding.

By the middle of May, however, Evergreen was able to announce plans for a heavy industrial corporation in central Taiwan, to be located in either Taichung industrial zone or Changhua Coast industrial zone.

The company said the "first step" for the new enterprise would be a pilot factory to manufacture motor yachts, up to 60ft long, which it believed had strong market potential in the US, Europe and Japan. The eventual production target was 1,000 yachts per year.

Evergreen went on, however, to give outline details of plans for other maritime activities, including shipbuilding, ship-repairing, and marine engine-

ering.

The company's announcement said: "Initially, Evergreen will aim to build its own container vessels utilising a 280-metre-long building berth. This will be capable of building 50,000-tonne containerships, enabling production of ships even larger than the company's present GX-class vessels of 3,428 TEU (20-ft equivalent units)."

The announcement said Evergreen was planning to build three or four of these very large containerships a year to replace older tonnage in its own fleet of 60 ships.

The question puzzling observers is how Evergreen expects to build ships more cheaply than the rock-bottom prices for which they are currently available from yards in Japan and South Korea.

The proposals were described as "totally inexplicable" by Mr Jim Davis, chairman of the International Maritime Industry Forum, which brings together suppliers and ship-owners from all over the world. "I cannot see any justification for starting a new shipyard when there is already over-supply," he said.

In the absence of further details, speculation on Evergreen's motives centres on whether the company believes that the restructuring currently taking place in shipbuilding could drive up prices to the point where building its own ships would become economic.

Evergreen would gain the benefits of a degree of vertical integration, together with security of supply, and would be well placed to enter the export shipbuilding market itself if such a move appeared likely to be profitable. If nothing else, this would be in line with the company's expansionist record.

None of this would make sense, however, if the company's new yard were unable to match productivity in other Far East yards, from which container ships of 50,000 tons are currently available for around \$40m.

Even at this level, Evergreen would still be able to save money by buying on the second-hand market.



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## KARAMI ASSASSINATION

## Karami: champion of Moslem demands for political equality

RASHID KARAMI, killed yesterday when a bomb exploded aboard a helicopter taking him to Beirut from Tripoli, was Lebanon's veteran Sunni Moslem prime minister who championed Moslem demands for political equality with Christians throughout his long career. Reuter reports from Beirut.

He was 65.

Mr Karami, whose resignation as prime minister on May 4 was rejected by President Amin Gemayel, was the established leader of the big Sunni community in the north Lebanese port of Tripoli.

He consistently sided with

Syria in recent years, reflecting his home town's traditional links with its geographic hinterland.

His resignation followed a widening rift with the Maronite Christian president after he invited Syrian troops to take control of West Beirut to halt bitter fighting between Druze and Shia Moslem militiamen in February this year, a move Mr Gemayel had denounced as unconstitutional.

Angered by Mr Gemayel's rejection of a Syrian-backed peace pact for Lebanon in January 1986, Mr Karami joined other Moslem leaders in refusing all contact with

the Christian leader. In effect paralysing an already feeble administration.

Mr Karami was always adept at exploiting powers available to him under the constitution and the unwritten national covenant of 1943 which divided the main offices of state between a Maronite Christian president and a Sunni Moslem prime minister.

Sometimes ridiculed for his slow manner of speech and stubborn optimism, Mr Karami was a shrewd statesman who survived countless ups and downs in Lebanon's troubled recent history.

Colliding with successive

Maronite presidents, he proved to be one of the few Sunni leaders strong enough to stand up to the Christians who dominate Lebanon's present political system. Mr Karami became Prime Minister for the ninth time since 1955 when Mr Gemayel, under Syrian pressure, chose him to head a "national unity" government in April 1984.

A white-haired bachelor, famous for his patience and coolness under stress, he came from one of the richest and most influential families in Tripoli.

Though personally a conservative, he backed Arab

nationalist followers of Egypt's late President Gamal Abdel Nasser in the 1950s and always had good links with the Lebanese left.

He was born on December 30, 1921, in the village of Marayta outside Tripoli. His father, Abdel-Hamid Karami, was the senior Sunni religious figure in Tripoli and served as Prime Minister for seven months in 1945.

The young Karami studied law in Cairo and worked as a lawyer for three years from 1943. In 1951 he was elected to parliament from Tripoli and began a meteoric political career.

He became Justice Minister

within months of his election and in September 1955 he was appointed Prime Minister, the youngest man to fill the post.

He resigned in March 1956 after a dispute with pro-Western President Camille Chamoun, who disliked his Nasserite stance. Mr Karami joined the Moslem opposition to Chamoun and during a Moslem uprising in 1958 he proved to be a powerful rebel leader, organising strikes, street barricades and armed groups.

Chamoun's successor, Gen Fouad Shehab, immediately called in Mr Karami as prime minister in September 1958

Mr Karami backed Gen Shehab's efforts to modernise Lebanon and to co-operate with Nasser's Egypt without offending the West. He served as prime minister five more times under Gen Shehab and his successor, Mr Charles Helou.

In 1969, Mr Karami resigned after the bloody repression of a pro-Palestinian demonstration.

When full-scale civil war erupted in 1975, President Suleiman Frangieh turned to Mr Karami as a prime minister who might calm Moslem hostility aroused by a short-lived military cabinet.

## Israel's relations with northern neighbour turn full circle

BY ANDREW WHITLEY IN JERUSALEM

FIVE YEARS ago this Saturday the Israeli army struck across the Lebanese frontier in a massive show of strength. "Operation Peace for Galilee" as it was dubbed, suggesting that the limited objective was to destroy the Palestine Liberation Organisation forces entrenched in southern Lebanon once and for all, and then quickly withdraw again.

Events this week—including the attack by Islamic militants on Israeli forces in the Golan Heights and the assassination of the Lebanese Prime Minister—underline once again how little the operation achieved.

As is now well established, the real ambition of Mr Ariel Sharon, then Israel's defence minister, mastermind of the invasion, was nothing less than the reshaping of Lebanon in Israel's own image.

The outcome was a painful three-year war, which cost Israel nearly 600 dead and achieved precious few of its ostensible goals.

Overshadowed by the hoopla surrounding this week's other anniversary—that of the momentous 1967 Middle East War—the events of recent days

and weeks suggest that Israel's tormented relationship with its anarchic northern neighbour has turned almost full circle again.

Day by day the impression of *deja vu*, back to early summer 1982, is becoming overpowering. The PLO is back in strength in southern Lebanon, establishing its own hegemony over the Sidon area; Katyusha rockets are again landing thick and fast around the Israeli border; and in response, Israel's military can conceive of no better reply than a frequent aerial pounding of the Palestinian camps.

In May alone at least 38 people were killed and over 120 wounded in the increasingly heavy retaliatory raids, justified by the Israeli defence forces as necessary to keep the PLO off balance and on the defensive. Each time they exploded, the Israeli bombs pushed the ratchet of violence and counter violence up few notches.

To pursue the growing parallels: Mr Sharon, now serving as Industry and Trade Minister, has, after a long interval, resumed his discreet contacts with the Lebanese warlords.

Mr Samir Geagea, head of the Lebanese forces, the principal Christian Maronite militia, was discovered in April to be "holidaying" on the Sharon farm in Israel.

All that was needed to complete the photomontage with five years ago was the assassination of a prominent Lebanese leader, comparable to the September 1982 car bomb death of Mr Bashir Gemayel—a fateful event which sealed Israel's dwindling hopes of the time of restricting its deepening involvement in Lebanon. That coincidence was provided yesterday with the blowing up of Prime Minister Rashid Karami.

The death of the veteran Sunni leader caught the Israeli Government off guard, unready to examine the implications of the removal of one of the few remaining constants in the Lebanese madhouse. "It would not be quick to react. Lebanon is so far from real stability it remains a dark country," said Foreign Minister Shimon Peres who, as Prime Minister, was largely responsible for extracting most of Israel's troops from its neighbour's territories.



Sharon: discreet contacts.

Political analysts drew more sombre conclusions, commenting that Mr Karami's assassination could end up being almost as big a blow to Israel's strategic interests in Lebanon as it is likely to be to those of Syrian President Hafez Assad.

In recent months, Israel and Syria have found themselves in a convenient marriage of opposites against the rising power in Lebanon represented by the alliance of PLO elements and pro-Iranian Shia Muslims, calling itself Islamic Resistance.

Trying to resist getting drawn in further themselves, the two sworn enemies have in practice been co-operating at arm's length against their mutual irritant, Syria, has, for the moment, become the "partner" Israel has constantly sought in Lebanon.

## LOSS OF LEADING SUPPORTER

## Syria's Lebanon influence weaker

BY NORA BOUSTANY IN BEIRUT AND RICHARD JOHNES

THE DEATH yesterday of Rashid Karami, Lebanon's veteran Prime Minister, left an unprecedentedly fluid government crisis and deprived Syria of its main political player on the Lebanese scene.

The Effendi, as the seasoned Sunni Moslem politician is known here, had managed to maintain his grip on his own community as well as on the intricacies of political manoeuvring through nine terms as prime minister since the early 1950s.

"No one can take the place of Rashid Karami. He has no successor in Tripoli, where even without a militia he was the only moral authority," commented Mr Samir Frangieh, the nephew of former President Suleiman Frangieh and a specialist on north Lebanon.

The Christian militias, the Lebanese forces have been drawn in further themselves, to accept the resignation of Mr Karami, who they blame for Lebanon's economic woes and recent for boycotting a regime that tried to resist Syrian dominance. Mr Karami stayed away from cabinet meetings for

almost a year and a half in an estrangement from President Amin Gemayel that was prompted by the latter's opposition to a Syrian-backed militia accord early in 1986.

Mr Karami, one of the pillars of Lebanon's traditional class of politicians, has colluded with successive Christian Maronite presidents and consistently championed Moslem demands for a greater share of political power in Lebanon's dated system.

His unbending rejection of Christian-inspired policies have often left Lebanon for months on end with no government. He stayed at home for 10 months when the Lebanese administration refused to sign the ill-fated Cairo agreement in 1983, an accord that regulated the presence of armed Palestinian guerrillas in Lebanon.

His obstinacy, however, has won him respect.

Though the evident culprit for his assassination appears to be the Christian militias, observers here insist that the parties that would like to weaken Syria's foothold in Lebanon go beyond the Christian camp. The abrogation

of the Cairo agreement by the Lebanese parliament last month has angered the Palestinian leadership which sees in this move a removal of its political cover in Lebanon. Syrian hostility to Mr Yassir Arafat, the Palestine Liberation Organisation chief, is said to have spurred the decision by the legislature to annul an accord that was never honoured by the Palestinian guerrilla movement.

Mr Karami was the only Moslem leader fully to command the confidence of Syria, almost inevitably the final arbiter of Lebanon's destiny. Damascus was evidently taken aback by his resignation on May 4, but efforts by President Hafez al-Assad's regime to persuade him to withdraw it were to no avail.

The last straw for the old Effendi appears to have been the marked economic deterioration this year, which has seen the Lebanese pound plummet against the US dollar. Mr Karami resented suggestions from the Maronite Christians of East Beirut that he should be held chiefly responsible because of his refusal since January 1986 to hold a full

Cabinet meeting (that is, one involving Mr Gemayel).

His boycott of the Christian president stemmed from the latter's rejection of a political reform programme involving power-sharing between Moslems and Christians which was worked out by Syria at the end of 1985 and accepted by three of the leading militia chiefs.

Mr Karami was backed in his long boycott by his Moslem colleagues, including Mr Walid Jumblatt, the Druze leader, who has long taken the view that there can be no political reconciliation until the president steps down. Repeated attempts by ministers to discuss political reforms or the economic situation broke up without any decisions.

Recently, Mr Karami had been hardening his line, openly criticising the division of power between a Christian president and a Moslem prime minister and saying that the present should be held by "the most efficient person" regardless of sect. In an interview calculated to enrage the Maronites, he even went so far as to say: "I am a Syrian. We are one people in two states."

## OTHER OVERSEAS NEWS

## Sri Lanka agrees to Indian relief ships for Jaffna civilians

BY JOHN ELIOTT IN COLOMBO

SRI LANKA last night avoided a major diplomatic confrontation with India when it reluctantly agreed "in the interests of good neighbourliness" to consider receiving an Indian Red Cross flotilla of ships carrying relief supplies for Tamil civilians on the northern Jaffna peninsula.

However, parliament is expected to hold an emergency meeting where a joint resolution condemning the Indian plan will be debated.

Earlier in the day Sri Lankan armed forces gained control of the town of Point Pedro on the peninsula from Tamil extremists, which marks the end of the first phase of its offensive.

The Government announced it would soon restore a local civilian administration to replace the extremists' unofficial government run from the city of Jaffna which they still hold.

India's Red Cross plan marks its first positive step following repeated warnings last week to Sri Lanka to halt its military operations on the peninsula and to avoid heavy civilian casualties. In diplomatic terms it appears to amount to an assertion of India's right to intervene in the affairs of Jaffna and a warning that tougher action could follow if military operations are extended.

India proposes to send a flotilla of three ships, as well as Indian journalists as well as relief supplies, across the

narrow Palk Straits from south India to arrive in the coastal city of Jaffna just before midday tomorrow.

The Sri Lankan Government might try to delay this programme because last night it only agreed to "consider receiving the supplies" and said it would "like the modalities to be worked out" between the two countries.

The Indian Government of Mr Rajiv Gandhi, is under domestic political pressure to take some action because 500 Tamil civilians living in the southern state of Tamil Nadu have close links with the Sri Lankan Tamils in Jaffna.

A message delivered by India denied the allegations of a Government in Colombo yesterday alleged that hundreds of the Jaffna peninsula's "defenceless civilian population" were being "subjected to strafing and bombing from the air and artillery shelling from the large numbers of old and new army camps."

"In response to this tragic situation, and motivated by humanitarian considerations, the Government and people of India propose to send urgently needed relief to Jaffna through the Indian Red Cross."

A statement sent back to India denied the allegations of civilian hardship and deaths and said the extremists' control of Jaffna would not have happened "but" planning commission of separatist terrorism by the State of Tamil Nadu.

## Kenya, Uganda relations improve

KENYA and Uganda yesterday signalled the easing of a strain in relations which has led to a virtual crippling of trade between the two East African neighbours. Reuter reports from Nairobi.

Kenyan President Daniel arap Moi told a national ceremony in Nairobi there was no tension at the border and said Uganda's trade routes through the Kenyan port of Mombasa were fully open.

The Ugandan prime minister's office in Kampala, in a brief statement reported by Reuter, said Uganda's relations with Nairobi had "generally improved."

An immediate sign of the improved atmosphere was the restoration yesterday of direct telephone links for the first time in five weeks.

"There are no troops at the border and I don't intend sending troops there," Mr Moi said. It was not immediately clear what prompted the sudden improvement in ties.

Tension rose to a peak last week, with Uganda accusing Kenya of massing troops on the border. Kenya was holding Kenyan nationals without cause.

The downturn in relations began last March when Kenya expelled over 1,000 Ugandans in a clampdown on illegal aliens.

Each side accused the other of human rights abuses and of supporting dissidents fighting their respective governments.

## AUSTRALIAN DOCKERS LIFT BAN

## Ousted Fiji Premier in talks

BY CHRIS SHERWELL IN SYDNEY

FLITS Governor-General, now ruling the Pacific island state under emergency rule, yesterday held crucial talks with Dr Timoci Bavadra, whose government was overthrown in last month's coup.

The talks, the first between the two since the day after Dr Bavadra was released from detention, sparked hopes that the Governor-General might persuade Dr Bavadra to reconsider participation in the Council of Advisers now helping to run the country.

The 18-man council was set up after Lt-Col Sitiveni Rabuka, who led the coup, accepted that the Governor-General had full executive authority in Fiji. It also followed an understanding with the influential council of chiefs.

But Dr Bavadra boycotted the council because of the imbalance in its membership. The council included several of his political opponents but only two members of his ousted government.



Ganlian: bans unjust.

News of the talks coincided with a decision in Australia to lift its ban on cargo to Fiji. The ban, imposed in protest at the coup, had stopped

a 9,000-tonne shipment of rice and wheat leaving Geelong, Victoria.

The union's clearly reluctant decision followed pressure from the umbrella Australian Council of Trade Unions, and was finally made on humanitarian grounds after reports of looming food shortages in Fiji.

The governor-general, Ratu Sir Fenaia Ganlian, said earlier that union bans in Australia and New Zealand were unjust because they would impose hardship on ordinary people.

Mr Bob Hawke, the Australian Prime Minister, was meanwhile scheduled to return last night to Canberra after attending a meeting in Western Samoa of the 13-state South Pacific Forum. He was expected to make plans for the three-man Fiji mission which he was appointed to head on behalf of the Forum. The Governor-General, however, has indicated that he would not accept such a mission.

## Bond unveils plan to dominate skyline

BY CHRIS SHERWELL IN SYDNEY

MR ALAN BOND, the mercenary Perth businessman whose domestic and foreign interests embrace brewing, resources and the media, now wants to dominate Sydney—with a 93-storey building in the central business district.

If approval is given, the proposed 100-storey skyscraper would, at 351 metres, be the Southern Hemisphere's tallest building and dwarf everything in sight in Australia's largest city.

Unveiling the plans yesterday, Mr John Bond, Alan Bond's son and an executive in the Bond Organisation, said the building would be known as Sky Tower. The cost of the whole project is estimated at A\$600m (£258m) and it would take some five years to complete.

The site is very near the old Sydney Town Hall and the recently renovated Queen Victoria building. The location and the

sheer scale of the project are expected to provoke an outcry.

It is not clear when the proposal will come before the city authorities, but Mr Bond indicated he hoped work would start by October.

If it goes ahead, the building will provide Sydney with another significant landmark apart from its Harbour Bridge and the Opera House.

Together with the Darling Harbour redevelopment, the proposed project and the proposed harbour tunnel, it is also certain to alter the daily life of the city centre itself.

Australia's tallest building at present is the Rialto Tower in Melbourne. News of the Bond group's Sydney plan coincides with a report from international estate agents Jones Lang Wootton offering a bullish outlook for property prices in the city centre.

## Right will unite to fight Hawke, Howard tells voters

MR JOHN HOWARD, leader of the Australian Opposition Liberal Party said yesterday that conservative forces, will unite in a strong bid to defeat Labor Party Prime Minister Bob Hawke in general elections on July 11. Reuter reports from Sydney.

Mr Howard said the Liberal Party and the rural-based National Party will join forces to avoid a three-cornered electoral battle. The two parties ended a coalition partnership only last month.

There is no formal electoral pact between the two parties but "unless we pool our resources" it will be difficult to

defeat Mr Hawke, he said.

Mr Hawke has called the elections almost eight months before the due date, aiming for an unprecedented third term in office. Latest public opinion polls showed Labor well ahead, but political analysts said a united Liberal-National force could change the trend in the next six weeks.

Sir John Bieleke-Petersen, the right-wing Queensland Premier, who engineered the split in the 40-year-old coalition in a bid to broaden the power base of the National Party, said he would co-operate in the conservative assault on the Hawke Government.

## Taiwan MPs pass record budget despite cuts battles

BY SOS KING IN TAIPEI

TAIWAN'S parliament has passed a record T\$488bn (£8.7bn) budget after both ruling and opposition party MPs reached a compromise on cuts worth T\$12.8bn from the proposed T\$499bn figure.

Parliament is thus beginning to emerge as a body with real teeth after years of simply rubber-stamping legislation and budget proposals sent down from the executive.

MPs from the ruling Nationalist Party have for weeks been embroiled in disputes over budget cuts with their colleagues from the newly-formed—and still technically illegal Democratic Progressive Party.

Only last week, opposition MPs threatened to boycott the final reading of the budget, but last minute concessions by the Nationalists brought DPP legislators back into the chamber and thus ensured that the budget was approved before the

deadline of May 31 set by the constitution.

Both opposition MPs and "Young Turks" from the ruling party had attacked several sacred cows in proposing budget cuts. Singled out for attention were such bodies as the National Assembly's "planning commission for the recovery of mainland China," which many here view as simply make-work for ageing assemblymen.

Free over the weekend were former Members of Parliament Mr Huang Hsin-chieh and Mr Chang Chun-hung, a former provincial assemblyman, as well as another four unnamed people, who apparently were not connected with the Formosa incident.

## Zambia cuts prices as troops patrol north to prevent rioting

THE ZAMBIAN Government yesterday shaved prices on essential commodities under a new economic strategy, as troops patrolled the northern copperbelt to prevent rioting. Reuter reports from Lusaka.

Feelings have been running high in the depressed copper mining area, where traders generally raised prices after President Kenneth Kaunda announced a break with International Monetary Fund (IMF) austerity policies on MAY 1.

Residents in the copperbelt, contacted by telephone, said soldiers and paramilitary police had set up roadblocks around main towns.

In Lusaka, business went as usual and there was no sign of

troops or police reinforcements on the streets.

Many people in the capital complained about the scale of the price cuts, up to 10 per cent off items such as blankets, soap, detergents and baby food.

Staple foods, such as bread, sugar and maize meal were not affected.

Mr Kaunda ordered the reductions to take account of lower import costs after a revaluation of the kwacha to a fixed rate of eight per dollar, from 21, on May 1.

The revaluation formed part of a new get-it-alone economic strategy, adopted to replace the IMF austerity program.

President Kaunda broke off negotiations with the IMF after saying that its conditions for a resumption of lending were too tough.

Labour leaders in the copperbelt said last week that gangs of unemployed youths were being formed in the politically volatile region to take action against shops that did not reduce prices after yesterday.

Fifteen people were killed in the copperbelt during food riots last December after the Government tried to lift maize subsidies.

A more limited outbreak of rioting took place in the region's main town, Kitwe, three weeks ago after militants of the ruling United National Independence Party tried to persuade traders to cut their prices.

## Ruling party in Seoul plans boycott of 'cover-up' debate

SOUTH KOREA's ruling party will boycott a special parliamentary session called by the opposition to discuss a police cover-up over the torture and killing of a student activist, a party official said yesterday. Reuter reports from Seoul.

Mr Lee Han-dong, parliamentary leader of the Democratic Justice Party (DJP), told reporters it would stay away from the session on Thursday because the opposition refused "dialogue and compromise."

Earlier in the day, the main opposition Reunification Democratic Party (RDP) and two other parties demanded that the session be held so a parliamentary panel could be set up to investigate the scandal thoroughly.

Although the opposition will be able to open the special session, it will not now have the required majority to hold discussions or set up a panel.

The Government announced on Friday the arrest of the nation's top spycatcher and two other senior police officers.

The three are accused of conspiring to minimise the reported number of police involved in Mr Park Chong-chol's death in January during interrogation about the whereabouts of a fugitive detainee. Five policemen have been charged with taking part in the torture.

The opposition still accuses President Chun Doo Hwan's Government of failing to reveal the whole

truth about Mr Park. It alleges that police continue to torture dissidents despite the Government's pledge to eradicate brutality.

The three opposition parties have 117 members in the 273-seat National Assembly. They rejected a DJP request they delay the special session until after the ruling party meets on June 10 to choose a candidate for December's presidential election.

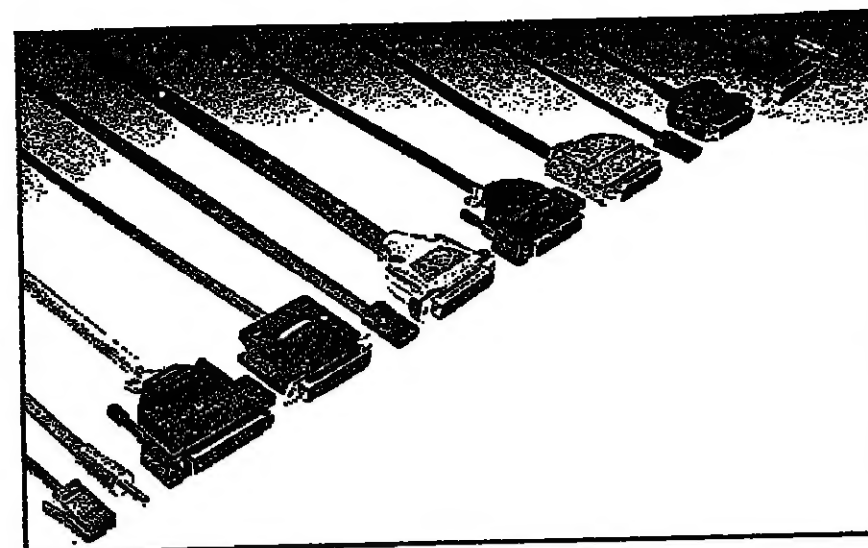
Mr Lee accused the opposition of trying to hamper the DJP's political agenda by using the torture issue.

"We cannot help but doubt the motives of the opposition's refusal of dialogue and compromise and its unilateral calling of the parliamentary session," Mr Lee said.



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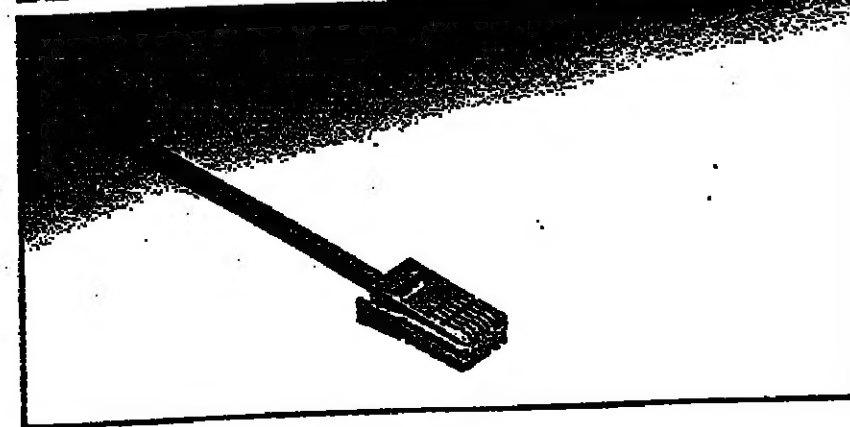


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## UK NEWS

# Citroen hopes supermini will boost market share

BY JOHN GRIFFITHS

CITROEN'S UK subsidiary expects to capture more than 3 per cent of the new car market by the end of next year, with the help of the AX "supermini" it is to launch later this month.

This would represent a total of about 55,000 sales in a full year; it compares with a target of 40,000 sales in this year and would be double the level of two years ago.

If the ambitions of Mr Bernard Peloux, Citroen UK's managing director since the end of 1985, are achieved, the Peugeot group - of which Citroen forms a part - for the first time would enjoy the prospect of joining Ford, Vauxhall and Austin Rover in being the only makers with market shares in double figures.

Peugeot Talbot has a UK share of just under 5 per cent and is forecasting that its "Sierra-basher", the Peugeot 405 saloon, will take at least 2 per cent of the market after it goes into production at Ryton, near Coventry, in the west Midlands, at the end of this year.

Mr Peloux indicated that Citroen's sharply improved UK performance would require a strengthening of its administration and dealer infrastructure. Some 30 people have been taken on recently at headquarters at Slough, west of London - bringing the total to 160 - with further increases to come.

The British price of BMW's new 7-series top of the range models, which have been in short supply and attracting a considerable premium in the used car market, has been raised by more than 7 per cent, writes Kenneth Gooding.

The West German group's UK import company explained, when announcing across-the-range price rises averaging 3.5 per cent, that the official price of the 7-series cars has not been lifted since the British launch last October.

This is partly to cater to what is claimed to be a strong increase in sales to fleets and business users.

Last year 12 per cent of total Citroen sales were to fleets. However, Mr Peloux said that this year he expected an increase to 20 per cent, with a proportion of up to one third achievable in the longer term. The company's fleet sales staff is being increased from three to 12.

Citroen's sales would be further strengthened in the next few years by a replacement for its current upper-medium saloon, the CX, and another new model which will fit between the AX and BX, said Mr Peloux.

None of the models clash with either the existing Citroen or Peugeot ranges, he said. The AX is a three-door "supermini" with engines of between 1 and 1.3 litres. It is claimed to have better fuel consumption even than any diesel car except the 1 litre Daihatsu Charade diesel from Japan.

Currently, CX sales are down to 1,800 a year but Mr Peloux predicted that its replacement should be able to achieve 4,000 to 5,000 units a year, similar to the peak for the CX. The new car between AX and BX should be capable of selling 10,000-12,000 units a year, said Mr Peloux, who predicted that the AX would take sales from across the supermini spectrum rather than from any one particular model.

Mr Peloux insisted that problems of severe depreciation experienced with some models, notably CX, were now "historic" and that resale values of its best-selling BX models were comparable with its mainstream competitors.

A priority was also to strengthen the quality, although not numbers, of the 270-strong dealer network. Mr Peloux said he was anxious to establish a core network of about 100 dealers each capable of selling 300-plus cars a year. The top 20 dealers already sold 450-plus each, but there remained a nucleus of under-performers.

## Ford to invest £23m in Wales

By Kenneth Gooding, Motor Industry Correspondent

FORD of Britain is to invest £23m at its factory in Bridgend, South Wales, mainly to install high-technology engine manufacturing and testing equipment.

Union representatives welcomed the announcement yesterday as a significant safeguard for the 1,500 jobs at the plant.

Much of the investment will be for equipment to test the engines while they are running and for a new building to house it.

Ford said the contract for the hot-testing equipment, worth £3.75m, had been placed with Froude Conine of Worcester, west Midlands, part of the Babcock International group.

The investment programme also includes the provision of new machining equipment at Bridgend.

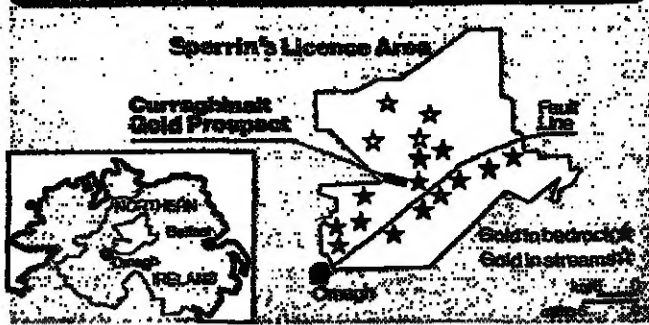
Ford said the investment would attract £200,000 of Selective Assistance money from the Welsh Office but no other outside cash.

Bridgend attracted about £100m of government assistance by the time it was opened in 1980 at a total cost of £180m.

Lucy Kellaway reports on a discovery that may bring jobs to a depressed region

## Golden prospect in an Irish hill

## SPERRIN MOUNTAINS GOLD DISCOVERIES



A SIGN outside a depressed-looking shop in the unprosperous and sleepy town of Gortin, Northern Ireland, says, "Furniture and carpets - Frank McGuigan."

Inside, the only furniture is a big wooden table on which there are large slabs of rock, a microscope and several local maps. The men who stand round the table have apparently got better things to do than change the sign on their new offices, for they claim to have made the first commercial gold discovery in Ulster, and are hoping that the region's first mine will be producing the yellow metal by the end of next year.

When Ennax International, a small exploration company, started to look for gold in Northern Ireland four years ago most observers thought it was wasting its time.

Although exploration for gold in the province had been carried out spasmodically throughout the century, no large deposits were discovered, although traces of gold had been found in streams.

Even Mr Peter McAleer, chief executive of the company, was doubtful when his geologists recommended that they should start exploring actively in the Sperrin mountains, only 10 miles from his home in Omagh.

"I've been looking for gold as far away as Canada and Australia, so I

couldn't believe that I'd find it so near to home," he says.

No sooner did the company start exploring its 300 square mile block in the Sperrins than it discovered gold. Over the last three years Ennax has drilled 83 bore holes on the Curraghinalt prospect and has discovered an estimated 300,000 ounces of high grade gold in 1m tonnes of rock. Production is likely to be at the rate of 30,000 ounces a year. The company says that the discovery is on a scale equal to that of many successful gold mines in other parts of the world.

In the next few weeks the second phase of detailed underground drilling will start to confirm the width and continuity of the veins of gold.

Meanwhile, discoveries in other

parts of the block have also been encouraging. Over the last few weeks, Ennax has identified 17 miles of gold-bearing volcanic rock to the south east of Curraghinalt. Although the concentration of gold in this rock is low, the geology is right for bulk tonnage open cast mine. The company is already imagining the favourable effects on the economics of Curraghinalt if a second mine could be opened nearby.

Flushed with its first success, Ennax feels confident that there is plenty more gold to be found. Were it not anxious to start producing gold as soon as possible, it might delay its plans to develop Curraghinalt in the hope of finding still larger deposits.

The Ennax discoveries have brought other companies into the area, anxious to make their own finds. Rio Tinto-Zinc, the previous holder of Ennax's Sperrins licence, has now started looking for gold in Northern Ireland again, while about half a dozen independents, many of them diverting their attention from the depressed oil market, are searching the region for gold instead.

Bringing the Curraghinalt mine into production is not going to be easy, and the likely returns from the project are difficult to assess. One problem is that restrictions on using explosives in Northern Ireland are so heavy that the company has decided against conventional drill and blasting techniques, in favour of mechanical rock-breaking equipment.

This method is almost untested in hard rock mines, and although it will be possible to develop the mine with drills, it will be expensive. The company says that until the equipment is actually in place, it will not know what the costs will be. However, it guesses that total costs are likely to be about \$300 (£184) an ounce, perhaps \$100 more than a similar mine in Australia.

Obtaining permission for a gold mine in the mountains, where the main competition is from sheep farming, is not likely to be difficult.

## Man behind stake in Guinness named

BY CLIVE WOLMAN

MR ALAN MARGULIES, the son of Mr Ephraim Margulies, the chairman of S. & W. Beristoff, was the person behind the purchase of about 44m worth of shares in Guinness by a small Geneva-based company called Cifco, it emerged yesterday.

The shares were purchased as part of a massive Guinness share support operation during Guinness's £2.5m takeover battle for Distillers last year.

Cifco was subsequently paid a fee of £1.5m by Guinness, which the new Guinness management is now trying to recover.

Mr Alan Margulies, who spends most of his time as a student, is also

engaged in the trading of shares and the parallel trading (the sale of goods outside the established distribution channels) of liquor and other products. In these activities he has developed a close commercial relationship with Mr Charles Rosenbaum, the head of Cifco, who also has long standing personal ties with the Margulies family dating back to the second world war.

Mr Alan Margulies arranged for the Guinness shares to be purchased through a Swiss investment company, Rahm & Bodmer acting as nominees on behalf of Cifco. Mr Margulies has previously bought shares in several other UK companies for Cifco. In this case Cifco decided to buy the shares apparently

in the expectation that it would encourage Guinness to use its services in trying to stop the parallel trading of Distillers' brands in various markets. This expectation was never fulfilled as Guinness decided to pay Cifco a fee instead.

Mr Tony Parnes, the stockbroker who was paid a £3m fee by Guinness for his work during the takeover bid, put together the original arrangement between Guinness and Cifco which was represented by Mr Alan Margulies acting on behalf of Cifco. He also arranged the payment of the fee. Mr Parnes has acted for several years as a personal stockbroker to both Mr Alan and Mr Ephraim Margulies. Mr Parnes arranged for the purchase of Guinness shares by Beristoff Capital Corporation, the US subsidiary of S. & W. Beristoff, during the takeover battle.

Mr Ephraim Margulies has said that he knew nothing about the arrangement between his son and Cifco, or the fact that they had purchased Guinness shares. Mr Ephraim Margulies has no financial interest or involvement in Cifco, but at the request of Mr Shawn Dowling, Guinness executive director, Mr Margulies has agreed to help Guinness recover the money.

Mr Alan Margulies has given evidence on this matter to the Trade and Industry Department inspectors who are investigating Guinness.

## Turner acquires ceramics division

By Terry Dodsworth, Industrial Editor

TURNER and Newall, the UK components and industrial materials group, is strengthening its position in the ceramics market with the £1.5m acquisition of the Refel Silt-on Carbide ceramics division of British Nuclear Fuels.

Refel had been losing money at British Nuclear Fuels, which said that it had decided the ceramics business did not fit into its overall activities.

Turner, however, believes that it will be able to achieve production economies and greater market penetration for the Refel product line by fitting it into its existing ceramics business, which was expanded considerably last year with the takeover of AE.

"We are experiencing fairly rapidly expanding product sales in this field," Turner said yesterday.

Advanced engineering ceramics are being used increasingly to make components for high-temperature applications or corrosive environments.

Refel was originally launched, for example, by the Atomic Energy Authority, which had developed ceramic materials as cladding for nuclear fuels in high temperature reactors. It is now used in bearings, engine components, and to make sleeves for sea-water pumps.

The 40 employees at Refel will be retained by British Nuclear Fuels, and re-employed elsewhere in the company. Turner, which will employ slightly under 100 in its ceramics division after the absorption of Refel, said that it did not expect to take on quite as many as 40 workers when it integrated the new activities.

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# Investment in Ulster promises 4,200 more jobs

## Northern Ireland's in the news again.

BY OUR BELFAST CORRESPONDENT

INDUSTRIAL investment in the new Ulster region is expected to bring the total to 4,200 more jobs in the next five years, according to the Northern Ireland Development Board.

The state agency's results for 1986 showed an encouraging 1986-87 increase in the number of jobs created, with only a slight dip in 1987.

The IDB said its objective of attracting investment from the private sector was being achieved.

It said that the number of jobs created in the private sector had increased by 1,200 in 1986-87, compared with 1,100 in 1985-86.

The IDB said that the number of jobs created in the public sector had increased by 1,000 in 1986-87, compared with 900 in 1985-86.

The IDB said that the number of jobs created in the voluntary sector had increased by 800 in 1986-87, compared with 700 in 1985-86.

The IDB said that the number of jobs created in the total sector had increased by 3,000 in 1986-87, compared with 2,700 in 1985-86.

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## UK NEWS

## Major building societies break banks' monopoly

BY HUGO DIXON

BRITAIN'S TWO largest building societies, the Halifax and the Abbey National, yesterday became full members of the payments system, breaking for the first time into the clearing banks' monopoly.

The moves are part of their strategies to become major players in the money transmission business by taking advantage of powers given to them under last year's Building Societies Act.

The two societies have joined the Association of Payment Clearing Systems (Apacs), the umbrella body which oversees and determines policy for Britain's payment systems.

They have also joined Bacs, the clearing body responsible for settling small automated payments such as standing orders and direct debits.

Membership of Bacs will mean they can offer customers a faster service, which is likely to encourage more of them to have their salaries credited directly to their building society accounts rather than their banks.

It will also mean the societies are able to upgrade the services offered on their electronic cash cards.

Apacs was set up in 1985, following a report which recommended that the clearing system should be opened up to any financial institution which satisfied various technical requirements and accounted for at least 1 per cent of the payments in one of three categories - cheques, large clearings and small automated payments.

Corresponding to each category, three clearing companies were set up: the Cheque and Credit Clearing Company, the Chaps and Town Clearing Company, and Bacs. A fourth company, Epos UK, was formed last year under the Apacs umbrella to work out the systems for electronic cashless shopping.

Initially both societies have become full members of only Apacs and Bacs. However, the Abbey National is being sponsored as an associate member of Chaps later this week by Citibank, the only non-British member of Apacs.

The Halifax, by contrast, has no plans to become a member of the Cheque and Credit Clearing Company, arguing that it prefers not to become bogged down in paperwork.

It will be pressing to become a member of Epos at a meeting of Apacs later this week.

In addition to the two societies, the Yorkshire Bank became a member of Apacs and Bacs yesterday, taking the total membership of Apacs to 17.

## Income fund backs American buy-outs

By Charles Batchelor

BERKELEY GOVETT, the fund management group, has set up a \$50m fund to invest in US management buy-outs and other unlisted US companies with good growth prospects.

The Berkeley Atlantic Income Fund will not make straight equity investments but will buy a range of subordinated loans, warrants and convertible stocks. These will include high-yielding subordinated debt issued in connection with buy-outs, convertible loan stock and subordinated debt with associated warrants.

The new fund aims to provide shareholders with a minimum dividend yield of 8 per cent a year, as well as achieving a capital gain. This means that Berkeley Govett will continue its policy of investing in more established companies and does not expect to be closely involved in the management of the buy-outs or the other companies.

Only more established companies could produce both income as well as capital gains for investors, Berkeley said.

Several British institutions have invested a minimum of £5m each in the new fund. It will be based in Jersey.

## Norwich Union insurance group 'to break South African ties'

BY NICK BUNKER

NORWICH UNION, the insurance group, plans to end nearly 100 years of involvement in South Africa by breaking off its ties with an offshoot life assurance company in Cape Town, a union official claimed yesterday.

Mr Tony Whiteley, divisional officer of the Association of Scientific, Technical and Managerial Staff, said the company's industrial relations staff told him at a meeting on May 20 that it would "completely sever" its connections with South Africa.

Members of Norwich Union staff had expressed concern about the group's possible links to apartheid, Mr Whiteley said. They had been told however that the connection

was likely to be completed by 1988. Norwich Union confirmed last night that it was involved in discussions that could lead to a "financial link-up" between Norwich Union Life Assurance of South Africa and the Natal Building Society.

But Mr John Garner, a Norwich Union spokesman, said it was "premature" to say that this would lead to a complete separation between the UK company and its South African offshoot. "At this stage any further comment might prejudice discussions," he said.

He said that because Norwich Union and its South African offshoot were both mutual companies, owned by their life policyholders, there were legal obstacles to be

overcome before any separation could occur.

Norwich Union Life Assurance of South Africa was founded in 1895, has annual premium income of about R100m (£30m) and employs about 500 people. Norwich Union said the link with the Natal Building Society - which ranks fourth biggest among South African societies - was envisaged because the country's life assurance market was involved in a shake-up leading to commercial realignments.

The link between the UK and Cape Town companies was "already tenuous," it added, since the Norwich Union in Britain received no profits or investment income from the South African offshoot.

## Post Office fights to bring old order back into fashion

BY DAVID THOMAS

THE POSTAL order, a way of transferring money associated with a bygone age, is fighting back.

The Post Office yesterday launched a series of initiatives, including a new design, aimed at jacking up the postal order's image.

Introduced in 1881, postal orders were once so popular that they were briefly declared legal tender.

Their use peaked in 1980 with 700m postal orders sent that year. In those days Aunt Agatha would not have dreamed of using anything else to send little Jimmy ten shillings for his birthday.

The age of the plastic card and more universal bank accounts put an end to that. The very existence of the postal order seemed threatened in the late 1970s when their use was declining at the rate of 25 per cent a year.

The Post Office has recently managed to stop the headlong flight from the postal order, partly by studying how they could be adapted to the modern age.

It now lays on computerised postal order facilities for companies wishing to send out large numbers in response to vouchers or coupons sent in by customers.

This allows companies to process thousands of postal orders in minutes, with each order bearing the company's logo and the recipient's name and address.

Market research also suggests that the postal order remains the most common way for people in the UK to send money to relatives in the Indian subcontinent and the Caribbean. In 1986, the use of postal orders fell only 3.5 per cent on the previous year to 54m.

The Post Office yesterday introduced a new design, including a new portrait of the Queen, the postal order's first major re-design since 1881.

The Post Office believes it still has a niche as a means for sending gifts. "The aim of the new look is to make postal orders simpler and more attractive, particularly for sending as gifts," explained Mr Dick Wheelhouse, marketing director for Post Office counters.

A £20 order, costing 55p, is also being introduced. Previously the highest value postal order was £10.

The lowest value postal order is now 25p, which costs 22p. Aunt Agatha would not have been amused at that.

## Money supply estimates confirmed

BY JANET BUSH

THE BANK of England yesterday confirmed its provisional estimates for money supply growth in April.

Broad money M3 (formerly Sterling M3) increased by a seasonally adjusted 1.9 per cent in April taking its year-on-year growth rate to 29.5 per cent.

Narrow money, M0, consisting mostly of notes and coins in circulation, rose by 0.4 per cent in the month giving a year-on-year rate of 5.3 per cent, in the upper half of the

Government's 2-6 per cent target range.

For the first time, the Bank published figures for two new broad money aggregates, M4 and M5, both of which treat banks and building societies as if they were a single group of institutions.

M4 rose by a seasonally adjusted 1.4 per cent in April giving a year-on-year growth rate of 14.6 per cent, while M5 rose by 1.2 per cent giving

year-on-year growth of 14.1 per cent.

M5 is similar in construction to M4 but includes private sector holdings of certain money market instruments, Certificates of Tax Deposit and some national savings instruments.

The fact that growth in broad money is more restrained than the definition accords with recent trends.

## Telecom approvals system streamlined

BY DAVID THOMAS

THE OFFICE of Telecommunications (OfTel), the regulatory body, yesterday announced moves designed to speed up procedures for the approval of new equipment coming on to the liberalised UK telecommunications market.

British and foreign manufacturers, trying to sell telecommunications equipment, such as telephones and private exchanges, have complained about the time and cost involved in getting their products approved for UK use.

OfTel's latest moves are aimed at meeting this problem, widely seen as holding back full liberalisation of the UK market.

However, OfTel's proposals are significantly weaker than an official report known as the Birtwistle report, published in February, which proposed a sweeping overhaul of the approvals procedure.

Birtwistle suggested allowing companies to certify themselves that their equipment satisfied many of the requirements in the approvals procedure.

OfTel appointed a further committee to look at Birtwistle, because much of the industry, including

British Telecom and the large equipment manufacturers, were opposed to the report's main recommendations.

It now appears that yesterday's announcements are likely to be the only decisions made on Birtwistle in the near future.

At present, companies have to submit applications for approval to the British Approval Board for Telecommunication. The board, in turn, sends the application to a number of designated test laboratories.

Professor Bryan Carsberg, OfTel director general, yesterday said he was launching a pilot scheme under which manufacturers will be able to send their equipment direct to test laboratories.

The pilot scheme will run for a year and will cover telephones, modems and some auxiliary apparatus. Approvals procedure for private exchanges has not been changed.

OfTel will carry out an initial assessment of the scheme in the autumn. It will consider whether the scheme has helped to reduce the time and costs of approval, while maintaining equipment quality.

## Export finance plan closer to agreement

BY PETER MONTAGNON, WORLD TRADE EDITOR

A MEETING yesterday of banks involved in UK export finance moved closer towards a common position on new proposals for the export credit market launched by the Bank of England and Export Credits Guarantee Department (ECGD). However, a number still have reservations on the scheme.

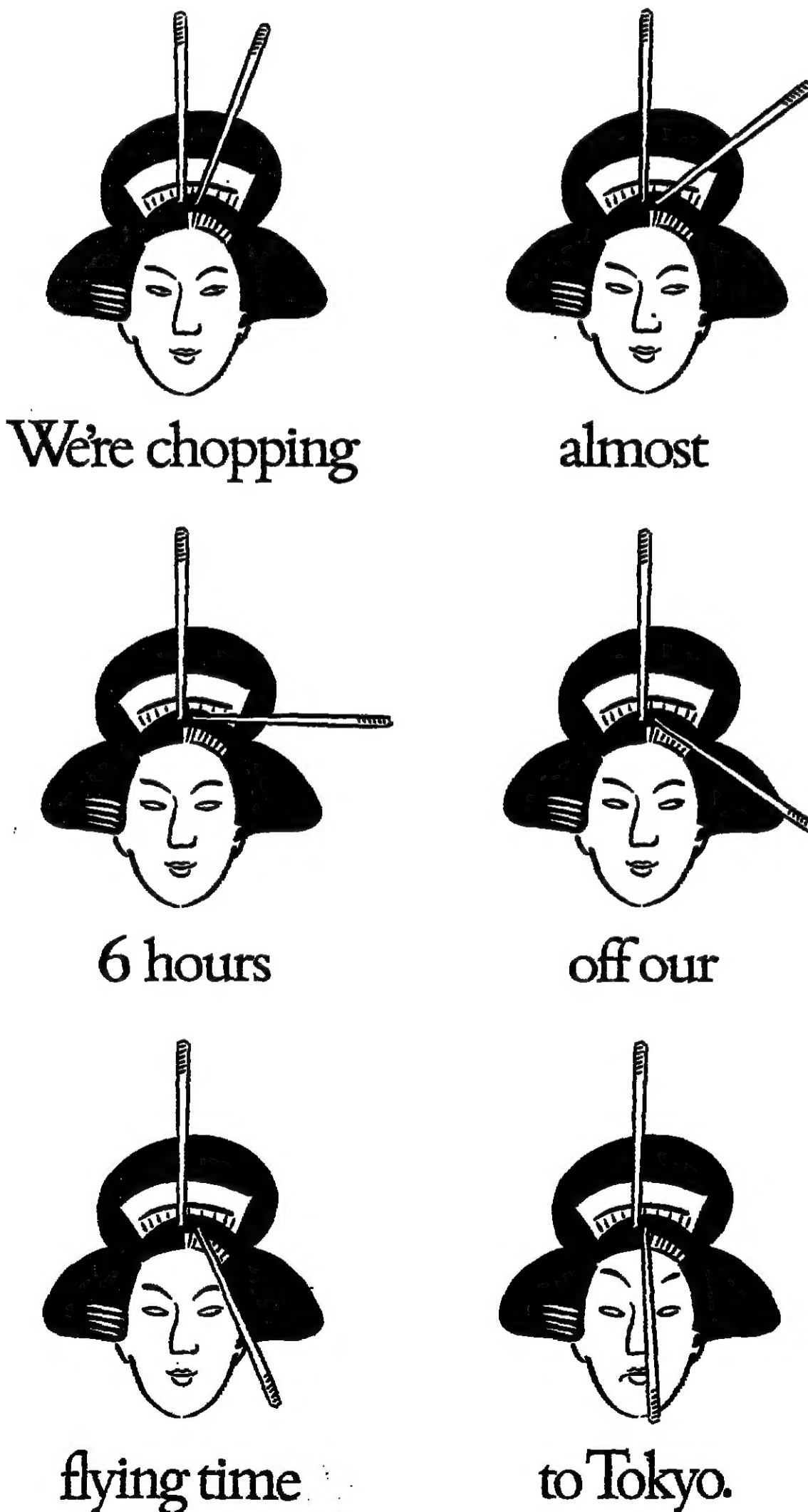
The meeting, held under the auspices of the Committee of London and Scottish Clearing Bankers, marked a first attempt by the banks to reach a common stand on the proposals. These include a suggestion that much of the ECGD's existing portfolio of medium term export credits should be refinanced on the international capital markets.

Bankers said at least one further meeting will be necessary before

they meet Government officials to discuss the plan on June 25.

Among their worries are that the new scheme, which would also involve lower interest margins on export credits, would unduly depress return on the business. Some banks with large volumes of lucrative export credits on their books are also uncertain about the refinancing concept.

Organisations represented at yesterday's meeting included the accepting houses and various foreign bank groupings as well as the clearing banks themselves. The proposals, which have been elaborated after more than a year of informal discussion, are part of an effort by the Government to cut the cost of subsidising medium term export finance.



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## UK NEWS — THE GENERAL ELECTION

## Thatcher puts policies before personal attacks

BY JOHN HUNT AND HONA THOMPSON

MRS THATCHER yesterday hit back at attempts by Labour to make her personality a central campaign issue and accused her opponents of trying to divert attention from Labour policies to reveal laws on immigration, and trade unions, and to make "enormous increases in taxation."

During a tour of the Medway towns in Kent, she said that despite Labour attacks on her personal style she would continue to campaign on policy issues and "the achievements of the past."

"They are trying to prevent the real issues being discussed," she declared. "We are going to go on discussing the real issues."

She gave a magisterial dismissal to remarks by Mr Neil Kinnock, the Labour leader, that she had surrounded herself with "sycophants and doormats."

"He does not actually sit in my Cabinet, thank goodness," she replied.

She made it clear that she was not going to be drawn into a personal counter-attack on Mr Kinnock's personality. "I don't comment on leaders of other parties, nor should I."

Although Mrs Thatcher made a brief attack on Labour's education policy during her tour, the main theme was the economic record of her Government and the danger of Labour

repealing Tory trade union legislation.

Mrs Thatcher also attacked Mr Bryan Gould, Labour's campaign co-ordinator, over an interview in Marxism Today in which he suggested that a future Labour government would be justified in increasing the top rates of income tax for ideological reasons alone.

This, said Mrs Thatcher, was quite absurd. The tax yield had actually been increased by her Government's reduction in income tax.

"If they are going to increase the rate as a matter of ideology there will be no increased yield," she said. "It may well be reduced."

Therefore, Labour's extra taxes would have to come from the general taxpayer. That is exactly what happened before.

She quoted a passage from the book Inside the Treasury by Joel Barnett (now Lord Barnett) who was Chief Secretary to the Treasury in the Labour Government. She referred to it as evidence that Labour would put up taxes for the general taxpayer and the low-paid. It would prevent British businessmen from operating successfully and would destroy jobs.

In the interview Mr Gould, questioned about Labour's plans for taxing the higher paid, said: "The case for compressing the distribution is social political

and moral. It is not that we think it is going to produce vast sums of money."

Earlier, at the Conservative morning press conference, Mrs Thatcher, asked about the impact of the "Thatcher factor," said Labour was trying to deflect attention from the real issues by making her personality a campaign issue. "They will not succeed. The issues are too important," she said.

"What they are really accusing us of is having the guts and the spine to put our policies through. To that we would plead guilty."

Asked about Labour accusations that the Tories' only concern was the possession of goods, Mrs Thatcher retorted: "Isn't it most normal and most honourable and one of the most moral things in life to want to do better for one's family and children, to give them a better start?"

"Isn't it the most fundamental liberty to be able to do that by your own efforts and keep the fruits of your own efforts largely?"

Wishing to get on, by their own efforts, was the driving force of society, said Mrs Thatcher. "If more people were able and willing to do it we should have an even higher standard of living and fewer families in difficulty."



A brush with authority: SDP/Liberal Alliance campaign co-ordinator John Pardo watches the first of 96 large posters of the two Davids going up in Lambeth, south London.

## Kinnock calls PM a 'would-be empress with palace sycophants'

BY MICHAEL CASSELL AND LISA WOOD

MR NEIL KINNOCK, the Labour leader, yesterday rejected suggestions that his party was intent upon mounting a sustained attack on Mrs Thatcher's personality but went on to describe her as a "would-be empress" who had surrounded herself with a palace guard of spineless sycophants.

In a damning indictment of Mrs Thatcher's prime ministerial style, which confirmed Labour's plans to make her a principal target in the final stages of the campaign, Mr Kinnock painted a picture of a singular government dominated by one person in which alternative views were outlawed.

Mr Kinnock had started his day in Derby with a press conference on Labour's industrial policy. He made it clear he wanted to stick to the issue of industrial policy, but in answer to a question about Labour's plans to attack Mrs Thatcher personally he stressed the party's strategy would be confined to criticising the Government's policy as a style, and not individuals, he said.

"It is not a personal attack but there will be more references to the Prime Minister I have no doubt. But don't ever mistake it for the kind of vitriol

and mud-slinging that we saw so widely exercised by the Conservatives and by their associates and allies in the press and elsewhere in the course of last week's election."

But shortly afterwards the Labour leader employed some of his most colourful language of the campaign to attack both Mrs Thatcher and her government colleagues.

He said Labour had to draw attention not only to the substance of government policies which had done so much damage to British society but to the style of Tory government—the way in which it is so insular and so much concentrated on one person.

Mr Kinnock said he did not entirely blame Mrs Thatcher for the situation although it was partly because of her manner and attitude. He continued: "It is also the fault of the spineless sycophants who let her get away with it, who either become her sycophants or are afraid to take the risk of contradicting or putting their own point of view against the Prime Minister, and were shovelled out of her Government."

Mr Kinnock alleged that Mrs Thatcher had alleged there were other people around the Cabinet table although it was

largely the fault "of the doormats which she selected and those who have made themselves into doormats."

He acknowledged that the British democratic system demanded that some one ultimately had to take the decisions in the capacity as leader but it also required a government which took the experience and wisdom of other people fully into account.

He said Mrs Thatcher's Government appeared in the role as a Palace guard with an ambitious, would-be empress at the top who wants to go on and on. "That is not the British way to run things."

The Labour Party, Mr Kinnock added, had excellent talented people at all levels who would help provide a collective leadership in government.

Mr Bryan Gould, Labour's campaign co-ordinator, said yesterday that Mrs Thatcher had brought herself into the campaign by talking about "my government" and "Thatcherism."

He said: "We maintain that Mrs Thatcher's approach to government—her values, her outlook and in narrowness of her vision—has cut her off from the majority of the people of this country."

## Owen rebuke over education policy

BY IVOR OWEN

DR DAVID OWEN, the SDP leader, last night stepped up his attack on the policy failures of Mrs Margaret Thatcher.

But he refused to compete with Labour spokesmen in subjecting the Prime Minister to personal abuse—though at an earlier stage he appeared to have been tempted to deliver a much more hard-hitting speech.

In a series of stinging rebukes, Dr Owen bashed Mrs Thatcher with responsibility for the crisis in the schools and in higher education, and for the unemployment total remaining in excess of 3m.

Speaking at Oxford he argued that the university's refusal to grant an honorary doctorate to Mrs Thatcher—"the greatest humiliation in her political life"—had been justified.

Dr Owen insisted that it had been the only way in which the university could demonstrate its repugnance for the Thatcher Government's contemptuous attitude towards education.

The refusal to honour the Prime Minister, he said, was a calculated insult which could not be explained away on the basis of left-wing bias or pettiness.

Dr Owen maintained that deep damage had been caused to education by the last few years with every level from nursery, primary and secondary schools to the universities affected.

He cited evidence provided by the opinion polls to support

his charge that Mrs Thatcher refused to listen to reason: "as a consequence, the Government she leads does not listen to the people of this country. They do not sense or respond to the concerns of the people of this country."

"The nation, he said, had paid a 'savagely unnecessary price' for the last eight years of Mrs Thatcher's premiership.

Dr Owen described Mrs Thatcher as an intelligent woman who was well-briefed and knowledgeable but warned: "She is in danger of fashioning a country in her own image."

Earlier at Stockton on Tees, one of the areas in the north-east with unemployment running in places above 30 per cent, Dr Owen attacked the Prime Minister's cynicism.

While accepting her claim that she "cared" about such issues he said she did so for "three weeks every four years"—the period of the general election campaign.

Dr Owen believes that education is one of the issues on which the Conservatives are losing support to the Alliance.

While still attaching importance to the potential gain to the Alliance from Labour supporters disenchanted by Mr Kinnock's non-nuclear defence policy, he has been disappointed by indications that in some cases that Labour defectors had transferred their allegiance direct to the Conservatives.

## Labour would protect council house sales

Labour would protect the rights of council tenants to buy their homes and would offer some cash alternative to move into the private sector, Mr Jeff Rooker, the party's housing spokesman, said yesterday.

Mr Rooker, speaking in his Birmingham Perry Barr constituency, said: "The best deal for council tenants is being offered by a future Labour government. No local authority will be able to take away the right of council tenants to buy their home. Labour will protect every council tenant's right to buy."

"For some, there will be the alternative of cash, to help them buy a new home in the private sector. Local authorities who take up this idea will get financial help from a Labour government."

Labour would also lift restrictions on the amount of the proceeds from house sales that councils are allowed to plough back into new and improved housing, Mr Rooker said.

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## Maverick seats may buck the national trend of voting

ELECTION NIGHT could produce some surprises if the gossip of candidates and party strategists is correct.

None of this is so far detectable in the national opinion polls because these conventionally assume an even movement of votes across the country as a whole. But this may not be correct; not only may there be regional variations, as in 1983, but there may also be special situations in several constituencies.

This has naturally been a familiar Alliance refrain. Mr David Steel, the Liberal leader, yesterday predicted variations in votes region by region and constituency by constituency. This, he said, would produce more "disaggregated" results.

This belief partly reflects the Alliance's policy of concentrating resources in particular target seats, a policy which was seen to pay off in the May 7 local elections. It argues that, for any given level of national support, the policy of targeting should mean more seats than indicated by the usual rules of thumb.

Variations from the national trend are suggested by many of the growing number of opinion polls commissioned in individual constituencies. Some have to be treated with caution since they are not done by national organisations and the sample sizes are small, but interesting patterns are indicated.

Labour is, for example, performing better than the national figures in Scotland where polls last week and this morning suggest it might easily take Edinburgh South and Striding, in addition to its three "bankers" (Edinburgh Central, Renfrew West and Cuninghame North). But there are only a limited number of other seats it can win north of the border.

Appropriately for the party of the red rose, Labour also appears to be doing well in Lancashire, standing to win, according to a Mori poll, Manchester Withington, which has been a Tory seat for many years. Across the Pennines, a Harris Research survey for Channel Four has pointed to a Labour gain by a large margin in Calder Valley. Several other seats look likely to swing.

However, Labour appears to be doing worse than the national trends in the Midlands. Its unexpected losses in the May 7 local elections seemed to reflect the impact of party divisions and the black sections row, in a region where race has always been a particularly sensitive issue.

Moreover, a Harris survey for last night's Channel Four News suggested a growing Tory lead

during the campaign in its existing seat of Dudley West.

Anyway, Labour is concerned more with defending existing seats than making many gains. A survey for Midlands Independent Radio suggested that the party could lose Birmingham Edington, Walsall South and Wolverhampton North-East.

In the east Midlands, the Tories have strong hopes of gaining Mansfield in view of the divisions during the miners' strike. Other Conservative hopes are Carmarthen, Cardiff South and Copehead, the site of the Sellafield nuclear reprocessing plant, where Dr John Cunningham is under pressure despite his personal support for nuclear power. However, a Mori poll for Granada last night suggested that he would hold the seat with an increased majority.

In the current state of the polls, almost all the Alliance hopes are special situations. The SDP yesterday leaked to Today newspaper a number of targets for the party between last Wednesday and Friday, and presumably only those which were favourable. These put the Alliance ahead in Bath and level-pegging in Islington South (currently Tory) and Labour-held respectively, and having narrowed a large gap in the 1983 election to less than 10 points in the Tory seats of Birmingham Hall Green, Cambridge and St Ives.

Peter Riddell on the parties hopes of 'special situations'

In addition, the Alliance is talking bullishly of its prospects in Cornwall North, Exeter, Cardiff Central, Winchester, Chelmsford, Richmond in London, Hexham, Littleborough and Saddleworth (all Tory), and Salford and Salford Hillsborough (both Labour).

The Alliance always talks up its chances in such seats at this stage of an election. It will need a pick-up in its national fortunes to win many, while it is also under pressure in some it holds like the Isle of Wight, Portsmouth South, Leeds West and Ryedale.

Yet, it is possible that such regional variations and special local situations may mean up to a dozen or so Alliance seats, mainly at the Tories' expense, than indicated by the national polls.

## Militant supporter leads field in Broadgreen

BY IAN HAMILTON FAZEY, NORTHERN CORRESPONDENT

MR TERRY FIELDS, the self-proclaimed supporter of the militant left, is poised to hold Liverpool Broadgreen for Labour, according to local opinion polls.

The polls also suggest that in the Wirral's two marginals, Mrs Lynda Chalker, Minister of State at the Foreign Office, is leading in Wallasey, while Mr Michael Woodcock, who unexpectedly won Ellesmere Port and Neston last time for the Conservatives, is also likely to hang on.

Broadgreen has been polled by Mori for Granada TV and by Liverpool Polytechnic for Radio City, Merseyside's independent station.

Mori gives Mr Fields 48 per cent support among intending voters, with the Alliance on 30 per cent and the Conservatives on 21 per cent. Radio City's poll gives him 47 per cent, with the Conservatives and Alliance

neck and neck on 20 per cent each, with 12 per cent undecided.

Broadgreen is an Alliance target and the figures are being seen as a setback. Mr Richard Fine, the candidate, said yesterday he expected a substantial swing to him in the closing days of the campaign.

He acknowledges that the Alliance's poor national performance has been of little help so far.

In Wallasey, Radio City's poll puts Mr Chalker on 41 per cent, with her Militant-supporting Labour opponent on 32 per cent. The Alliance has 17 per cent with 8 per cent undecided.

In Ellesmere Port and Neston, the Alliance is trailing with only 9 per cent, against the Conservatives' 37 per cent and Labour's 37. Nearly 9 per cent are still undecided.

Only in Broadgreen does the Alliance seem to be picking up more undecideds than the Conservatives, but Mr Fields has picked up more improving his share by 8 per cent in the week.

## Black voters shown favouring Labour Party

AN OPINION POLL conducted by the Harris Research Centre for the Hansib group of newspapers and published in this week's Asian Times, Caribbean Times and African Times shows that 72 per cent of all black electors will vote for the Labour Party in the election.

The survey carried out by a specially trained "ethnic field force" found that Labour support was strongest among the West Indian community at 88 per cent and 67 per cent for Asians.

Among the West Indian sample the proportion saying they would vote for the Conservative Party was 6 per cent and the supporting the Alliance was 7 per cent.

Unemployment proved to be the most important single election issue among respondents, followed by law and order, housing and racial discrimination.

Of those interviewed 54 per cent said they were satisfied with the Labour Party's race and immigration policies. This compared with 24 per cent who approved of the Government's handling of such issues.

## Teachers' action 'appals' Thatcher

By John Hunt

MRS THATCHER said yesterday that she was "appalled" by the action of some of the teachers' unions in starting a campaign of half-day strikes earlier in the day to protest at the Government's education policy and the teachers' pay offer.

She said the teachers had been awarded a 16.5 per cent rise this year, far more than many of the parents of their pupils had received.

"It is totally unwarranted to make the children suffer when the teachers have received the biggest pay increase they have ever had," she said.

Her remarks came on her election tour after she had paid her first visit to a state school since the beginning of the campaign.

She was given an enthusiastic welcome by hundreds of pupils as she landed by helicopter on the playing field at Walderslade Secondary School near Chatham in Kent. But some of the teachers complained about a state school being used for electioneering purposes.

Tory officials handed out "I Love Maggie" hats to children before the Prime Minister arrived. Most of them put them on and cheered with delight but a few tore them up and threw them on the ground. There was also a hand-drawn Alliance poster.

Mrs John Holborn, head of the boys' upper school at Walderslade, said that some teachers had resented being asked to greet Mrs Thatcher. O Level exams in history were being held at the school and it had been difficult to get on with routine work.

But Angela Procter, chairman of the school governors and secretary of the local Conservative Association, dismissed the criticism as "ridiculous."

## Straw says poll tax would benefit high earners

BY LISA WOOD

LABOUR yesterday stepped up its attack on Conservative proposals for a poll tax which would replace the present rating system.

Mr Jack Straw, Labour's spokesman on local government, said that a group would benefit—those who lived in large houses and had a high income.

He produced research into what a Tory Cabinet minister would have under a poll tax and said on average they would save £23.53 a week.

Thatcher, at her new Dulwich home, he claimed would save £31.13 a week.

Mr Straw agreed that some members of the Labour Party would benefit under the tax but said the difference between Labour and the Tories was that Labour members did not mind paying the rates.

He claimed the Conservatives had already made a U-turn on their proposal by saying they would increase housing and supplementary benefit to provide some compensation for the 20 per cent minimum payment.

Some single unemployed people, he said, could not expect any rebate as their incomes would be above the level for support.

He said: "We maintain that Mrs Thatcher's approach to government—her values, her outlook and in narrowness of her vision—has cut her off from the majority of the people of this country."

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## THE ISSUES: PRIVATISATION

## How the Conservatives have won Sid's vote

BY JANET BUSH

SID, that elusive representative of the common man at whom the Government has aimed its campaign of popular capitalism, may never have heard about British Gas shares but has found his way into national folklore.

There is no doubt that the Conservative privatisation programme has caught the imagination, with a little help from persuasive advertising campaigns.

Of course, there have been many who sold out for the instant premium. But there are others who are hanging on to their shares because it feels like owning a bit of Britain.

The out-and-out popularity of the sales of British Telecom, British Gas and the TSB has built a momentum of enthusiasm (not to mention a stock of capital gains) which has undoubtedly played a part in the success of issues such as Rolls-Royce and British Airways, which did not start so precisely at the private individual.

Just as the sale of council houses was judged a vote winner in 1983, so privatisation can be expected to deliver to Mrs Thatcher the votes of a satis-

fied band of small investors. According to official figures, the number of individuals who own shares has trebled since 1979.

The ideology of popular capitalism is spelt out in the Conservative manifesto. In a review of the programme so far, it says: "We are determined to make share ownership available to the whole nation. Just as with cars, television sets, washing machines and foreign holidays, it would no longer be the privilege of the few; it would become the expectation of the many."

The Government confirms its intention to sell off the electricity and water industries which will join the other major utility—gas—in the private sector.

The latter stages of the privatisation programme have been characterised by the sale or planned sale of very large concerns which are virtual monopolies (and in the case of British Gas remain so even in the private sector) and exclusively provide a service to a nationwide customer base whether it be a telephone or gas network or the electricity grid.

It is the latter aspect which

## Baker calls shadow Cabinet 'hypocrites'

MR KENNETH BAKER, Education Secretary, last night said a "bunch of sanctimonious hypocrites" for opposing the Government's education plans.

Mr Baker, in a speech at Shere, Surrey, said that of the 21 members of the shadow Cabinet, 18 had selective

grammar school or private education.

"Ninety per cent of them benefited from a system which they now want to deny to everybody else. What bunch of sanctimonious hypocrites they are. Their motto is 'pull up the ladder, Jack, we're all right'."

He said: "We maintain that Mrs Thatcher's approach to government—her values, her outlook and in narrowness of her vision—has cut her off from the majority of the people of this country."

He said: "We maintain that Mrs Thatcher's approach to government—her values



## UK NEWS - THE GENERAL ELECTION

## Television affects an upturned nose in face of political razzmatazz

IN THE middle of the campaign, with another 10 days of "Oh yes it is!" and "Oh no it isn't!" stretching out before us, what the television campaign needs is a spot of gutter journalism to lighten it up. It has become the most reined pantomime in the history of the medium.

We have always been told that television's duty is to illustrate the issues and not to promote personalities. The parties which proclaim this most loudly are, of course, the very parties which make the most personalised "presidential" party election broadcasts.

So far as television's own programmes are concerned, however, issues are all in the campaign. Indeed, matters have reached the stage where politicians (some clearly retaining a residual sympathy with the public mood despite the campaign hysteria) set

up "photo opportunities" with animals or babies only to find the television teams reacting very stiffly.

Instead of co-operating gracefully, the television people have taken to shooting a few quick pictures of the friendly Alsatian or the big toy panda, inserting the briefest possible clip into the news, and accompanying it with a smug announcement that this was, of course, merely another contrived "photo opportunity." The very phrase has become a shorthand way for television people to express their disapproval of attempted manipulation by frivolous politicians.

Indeed, television news is now deliberately undermining the leaders erected by the parties. When Labour launched its manifesto with Messrs Kinnoch and Hattersley marching out to the strains of Brahms' last sym-

phony, Channel 4 News (the best daily programme by a considerable margin) filmed the occasion from backstage, showing the campaign manager orchestrating the whole thing, and including the faltering opening notes of the music.

This week the BBC Nine O'Clock News showed Mrs Thatcher's warm-up man telling a joke about a "Paki curry bomb," and the television editor, interested in the comedian with a shot of a very straight-faced black man in the audience.

The idea behind such sequences is clearly to imply that television is jolly well not being taken in by all this razzmatazz, and that even if the politicians who originally called for a serious approach are incapable of sticking to that principle once the campaign gets going, television—smug, self-satisfied—will not.

Yet ironically it is not the differences between politicians and television journalists that matter most but the similarities. Clearly both enjoy being in the public eye, both enjoy the sounds of

**Christopher Dunkley bemoans a lack of spice and sparkle**

their own voices, both have a desire to influence public opinion, both believe that lengthy public debate is a good thing. In last week's Radio Times Mr John Humphrys, former news reader and now co-presenter at Today, declared: "I don't know how anyone can be bored by elections. They're a journalist's lifeblood."

Perhaps so, but Mr Humphrys clearly does not speak for the public. According to this week's Mori poll in the Sunday Times, 71 per cent of people think there is too much election coverage on television. Video hire has suddenly hit a record high, and personal experience suggests that across the country viewers without video cassette recorders are flocking desperately from channel to channel looking for anything other than an egotist in a dark City suit saying "Before I answer that could I just say..."

It seems to be widely assumed that all channels are doing too much, but this could be a reflection of the fact that channel loyalty is rapidly disappearing, thanks to remote controls, so that few viewers have a clear idea of any of individual channel output. A careful look, channel by channel, suggests that the main responsibility

for overkill rests with the BBC, that Channel 4 may have got it just about right, and that ITV may even be doing slightly less than they might, at least in the London region.

Drafting in David Dimbleby to the Nine O'Clock News, BBC1 has ensured that an overwhelming proportion of the expanded programme will be devoted to the election, whereas ITN, by adding only five minutes to their News at 10, and sticking with the usual news readers, have kept matters more in proportion. The man who has emerged most impressively, however, from the election news coverage is Peter Sissons, presenter of Channel 4 News. Sissons, a television journalist, is adopting a bawling tone towards politicians, an approach seen at its worst on ITV's This Week where Jonathan Dimbleby reminds

one of a cheeky schoolboy using an open-day debate to try to bully the masters. This hostility is usually produced in the name of the uncommitted viewers, many of whom would not encourage it. Sissons proves that such techniques are quite unnecessary by getting better responses without ever resorting to such aggression.

But never mind the journalists: where are the 1987 versions of the political characters who used to add a little spice and sparkle to election campaigns, the Gerald Nabarro and George Brown? Again personal experience away from the screen suggests that there are still people of this sort around: Rhodes Boyson, Tony Benn, Ken Livingstone. Kenneth Powell are all capable of making amusing and gripping speeches. But for some reason the cameras never seem to reach them.

## Young says Labour would lose 1m jobs

By Fiona Thompson

Labour and Alliance policies would bankrupt the economy and rapidly destroy jobs, Lord Young, the Employment Secretary, warned yesterday.

Both parties would pump out money to pay for a massive increase in the public payroll—a policy that had been tried before and had always failed, he said.

"Their reckless spending commitments would once again derail economic growth, creating a crippling inflationary spiral and leading us back into the hands of the International Monetary Fund," said Lord Young.

Neither the Alliance's "magic wand of a new-style incomes policy" nor Labour's "touching faith in a new social contract" were credible reasons for believing things would be any different next time.

Labour's manifesto committed them to a jobs destruction pact that would put more than 1m extra workers on the dole to meet Mr Kinnoch's debt to the union bosses and Labour's left wing, Lord Young said.

He said 600,000 jobs would go as a result of Labour's minimum wage legislation, the cancellation of Trident and elimination of Polaris would take another 60,000, phasing out nuclear power would cut 150,000, the introduction of sanctions against South Africa would cost 120,000, and plans against private health and education another 50,000.

Lord Young said the choice was clear: "A continuation of the Conservatives' tried and tested policies to encourage continued economic growth, or the disastrous policies of the opposition parties which would throw away all our economic gains."

Overseas investors are now flocking into Britain, the Employment Secretary said, a very different situation from that six or seven years ago. For the Alliance would let the Labour in. Labour said a vote for the Alliance would let the Tories in. "In fact, a vote for the Alliance will let the Alliance in."

Voting the Alliance would "steady the sea-saw and stop the alternation of government between Labour and Conservative."

Mr David Steel, the Liberal leader, quoted a report which, he said, suggested that the only choice in this election was between two sets of vested interests.

"The Tories, if elected, will further benefit the rich, and Labour, if elected, will benefit their friends among the union leaders."

"If that were the full picture it would mean that whichever party won, more than half the country would be the loser."

The Conservative and Labour parties offered, at best, government of all the people by half the people... for half the people."

Mr Steel said both other parties were threatening, if elected, to become narrower still. "If the Tories win the shift will be further to the right. If Labour were to win we are promised a repeal of secondary picketing legislation. Scargillism and the scenes at Wapping will again be the order of the day."

Mr Steel said there was evidence that the Labour vote was declining. "Come polling day it will melt like snow off a dyke."

Dr Owen said there were "rays of sunlight," placed where the Alliance was gaining and had a real chance of taking the seat.

Both the Alliance leaders said they believed that Mrs Thatcher would not remain if the election resulted in a hung parliament.

"I do not believe she would want to sit around dealing with various policies," said Mr Steel. "It would really require such a change of character that would be unimaginable."

"Whatever title she takes — the Duchess of Dulwich or the Countess of Finchley, I think she would disappear, and we would be dealing with a new Party," of the Conservative Party.

## City accused of abandoning industry's needs

By Michael Cassell, Political Correspondent

LABOUR yesterday accused the City of London of abandoning the needs of British industry and warned that it would tighten up the laws aimed at curbing fraudulent activity within the financial community.

The party leadership also made it clear that it intends to introduce measures designed to give government a close and continuing say in the way multinational groups conduct their affairs in Britain.

Mr Neil Kinnoch, the Labour leader, yesterday criticised the City for what he claimed was its failure to provide the finance required for investment in manufacturing industry and attacked it for its recent record of illegal or near-illegal activities. He said the public was well aware of the kind of activities in which the City had been indulging. People were extremely suspicious of these.

But he said Labour's principal concern was that "we now have a financial system that has almost stopped serving the industrial interests of our nation." He claimed that Britain now had a financial sector that committed most of its effort to making money, and very little to the financing of industry.

He added: "It is that matter which concerns us most although any dishonest activity in the City should be thoroughly investigated and vigorously punished."

Mr John Smith, Shadow Trade and Industry Secretary, said Labour was committed to tightening up the laws applying to the City. He said enforcement measures in the City are sadly lacking and if anything like the same enthusiasm was shown in pursuing City fraud, the City would have been cleaned up years ago.

Mr Kinnoch dismissed the apparent lack of confidence within the City for a Labour government and said that anyone concerned with making money should understand that it was much more possible to do so in an economy, based on policies designed to boost production and improve trade, rather than in an economic climate "enriched by continued rundown, high interest rates, cutbacks and unstable currencies which had characterised the Tory years."

He added: "If they are really interested in making returns over a long period of time and with security they have a vested interest in supporting Labour."

Expanding on the party's plan for regulating the activities of multinational groups, Mr Smith said it intended to establish with the Department of Trade and Industry a monitoring unit to keep abreast of their activities. The intention was for the Government to discuss the multinationals' forward plans and to influence them to avoid the type of balance of payments deficits which were harmful to Britain's interests.

He stressed that such groups were very welcome in the UK

especially when they provided badly needed jobs and investment but he insisted that their policies should coincide with the British national interest.

Under Labour's proposals regional and industrial development grants would only go to groups with business plans involving investment and jobs approved by the Government. There would be continual scrutiny and financial penalties could be imposed if the original plans were changed without consultation.

Mr Smith cited the case of Caterpillar, the tractor manufacturer, which had said earlier this year that it intended to close its Lancashire operation with the loss of 1,200 jobs. He said such a decision was calculated to devastate local communities and Labour was therefore determined to have more influence over the operation of similar businesses.

Labour also revealed that it intends to investigate a government "Buy British" policy by resurrecting the domestic preference purchase programme which it claims the Government has abandoned in recent years.

Mr Smith said the central government had to utilise its purchasing power much more sensibly.

Labour would on being elected immediately call a meeting with leading British producers and consumers to discuss a "subsidy" under which the public sector has instructions and every incentive to buy British. The initiative would be channelled through the council of National Economic Development Office.

It is understood that Labour will also consider making tax concessions to important domestic purchasers of British equipment although it knows that its proposals could run into difficulties because of EEC legislation. France, however, has overcome the legal barriers and Labour hopes to do the same. Mr Smith added: "What we need is a robust Buy British policy."

Mr Kinnoch claimed that the principle of preferred purchase of British goods had been established and that it was "only the eccentricity, and dogmatism of this Government that has taken it into disuse."

**Hattersley 'in richest 5%**

MR ROY HATTERSLEY, Labour's deputy leader, yesterday classed himself among the "richest 5% in the country earning more than £14,718 a year."

He said on BBC's Election Call programme that £4bn a year tax cuts they had enjoyed were "intolerable to me."

"If you take the money off me and give it to a pensioner it is not inflationary, I would probably spend it anyway."



The future—and it smirks: Kenneth Baker campaigning in Surrey.

## Master Baker uses his loaf

A GLORIOUS afternoon in the picture-book garden of Heather Cottage, the Education Secretary, is detailing the Soviet superiority in battle tanks to a gathering of local constituency faithful and, bizarrely, a lifesize cardboard model of the Prime Minister.

A burglar alarm goes off. Anguish among the faithful is that Holly Cottage or Heath Cottage? Scarcely breaking stride, the Cabinet's slickest minister asks his Special Branch detective to deal with it, quips that he ought to be taking about crime, not defence, and sweeps his audience's attention back to the red hordes.

The day before, campaigning away from his Surrey constituency and buying socks the way politicians do at election time, Mr Baker had been trapped inside Bradford by a baying mob of Militant Tendency supporters. "Marvellous!" he enthuses 24 hours later, recounting how he persuaded the television crews there to film what he considers the real face of the Labour Party. But he implies it was also marvellous because it was exciting, the very stuff of election campaigns, and he is B.B.S., Bradford, or Heather Cottage. Headley, this man is a consummate campaigner.

We are in Dorking, the heart of the prosperous Mole Valley constituency being defended by Mr Baker (Tory majority a hefty 14,718) and we are in A.A. R. Miller, the baker's, in the high street; naturally, the minister is buying bread and while he's here he'll have one of those and two of those and, oh, those look rather good as well.

The shop assistants lap it up. They have already lapped up Mr Baker's pledge, reported on the front pages of the local weekly newspapers, to tackle British Telecom over its repeated excavations of the high street. Mrs Mary Baker points out the headlines to her husband as he works the crowd from his "battleground"—a blue Land Rover—edging its way down the bustling street.

Lunch at the Cock Inn. Headley: the man may tip to be the next Tory leader, sits down to a pint of lager, a Castella, a jacket potato with cheese and pickle and a giant frankfurter. "I do worry about Kenneth living on chips and beans," confides Mrs Baker.

## David Brindle with the Education Secretary at the hustings

The hearty meal, the pint, the modest cigar are all part of the Baker appeal. Later in the afternoon, after the affluence of Heather Cottage, we are at Box Hill Village Hall with an audience dominated by residents of local mobile home sites. The mood is informal and genial to the extent that one resident admonishes a circumlocutory Mr Baker: "You sound like Sir Humphrey Appleby, minister."

Everybody laughs, the minister most of all. Here Mr Baker takes a drubbing on hanging—he is against it and makes no apologies, just as he makes a point of every meeting of reminding the well-to-do Surrey folk of the harsh realities of life elsewhere. "The problem of the 1990s is going to be the inner cities," he tells the next "cottage meeting" at timber-beamed Hall Farm, Mickleham. "There is a coming together, but there are still divisions in our society and we have to do everything we can as a government to try to act on those divisions," he tells a public meeting in the evening at Bears Green Village Hall, of the Heathside who helped to run the former Tory leader's unsuccessful defence of his post against Mrs Thatcher. Mr Baker paid for this with seven years in the political wilderness, but his record since his rehabilitation in government in 1981 suggests that while he remains determinedly his own man, his outlook dovetails neatly and opportunely with the prevailing party philosophy.

I was the minister who privatised British Telecom and it if you get over that, there is hardly anyone who would want to buy the shares."

Such self-satisfaction has earned Mr Baker a reputation for smugness—"I have seen the future—and it smirks," one wag is reputed to have cracked) but it seems to do no harm in Mole Valley, where the minister is digging himself in after switching from an abolished London constituency in 1988.

His opponents in a three-corner fight are Mrs Susan Thomas, a Liberal, and Mr Chris King, Labour, both of whom he goes out of his way to compliment. The main local issues are the shortage and high cost of housing and the environment almost all the constituency being green belt. When challenged on the former, Mr Baker is given to retort effectively: "If you want cheap housing, you can have it on that field out there."

Education, though, remains the big talking point at the time when those who accuse him of being "all front and no bottom" have drawn satisfaction from seeing the Tories make a hash of presenting their plans for grant-maintained schools free of local authority control.

At the last cottage meeting of the day, at Westhumble, the Education Secretary is ambushed by discontented teachers. He promises, as he does at each meeting, that the proposed schools will not charge fees and will not reintroduce the 11-plus examination. At least one teacher remains angry, but Mr Baker is accustomed to that.

It is only later, at the evening meeting at Breare Green, that his defences are pierced. The bother of a primary school teacher gets nervously to her feet and tells him: "My daughter has to buy her own books out of her own salary to keep up. She also has to buy paper for the kids to write on and draw on. She has to buy pens, pencils and colouring pencils for her children. I just thought you ought to know that."

Momentarily, Mr Baker wobbles. He is really very surprised to hear that, he says, and please let him have the details afterwards so that he can look into it. Then the police returns, the smile beams and the charm flows as freely as the figures on rising school spending.

## Sinn Fein 'only party to offer permanent peace'

SINN FEIN, the political wing of the Irish Republican Army, said yesterday its election campaign was based on "unflinching" opposition to British rule in Northern Ireland and short-term demands for better conditions for the nationalist minority.

Styling itself the only party offering permanent peace in Ireland, its manifesto called for a British announcement of withdrawal from the province, followed by an elected all-Ireland constitutional conference which would draw up a constitution containing guarantees for nationalists.

Mr Gerry Adams, party president, repeated Sinn Fein's belief in the legitimacy of IRA violence. He also stressed the need to fight economic issues such as discrimination against Catholics in employment.

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## Liverpool factor casts veil of doubt over Labour hopeful

Ian Hamilton Fazey on prospects in Britain's second most marginal seat

KEVA COOMBS and his canvassers have a special code they mark on their lists of electors in Hyndburn, Lancashire. It consists of letters "DL" and stands for "doubtful, Liverpool factor is weighing on the mind of voters."

For Mr Coombs has been very active in that city's politics. He led the remains of the Labour group on the rump city council after 47 Labour councillors had been disqualified and has been prominent in trying to end the party's civil war on Merseyside.

Other recent high-profile activities do not help. Mr Coombs was solicitor to both Mr Derek Hatton, the expelled Militant, and Miss Sharon Atkin, deposed as a Labour candidate in Nottingham East by the party's National executive.

There were five re-counts in

Hyndburn last time, when Mr Ken Hargreaves, a local man, won for the Conservatives by 21 votes, making this Britain's second most marginal seat.

It is named after the borough that lies between Blackburn and Burnley, and is made up mostly of the more widely known town of Accrington.

It is easy to find people in Accrington who say that if Mr Arthur Davidson, who held the seat between 1966 and 1983, were Labour's candidate, he would be its MP again by June 12. They are not so sure about Mr Coombs's chances.

Indeed, Mr Hargreaves's supporters consider the selection of Mr Coombs in preference to Mr Davidson a gift because, however unfairly, he is tarred in association with Labour's Merseyside problem, the "loony

left" and black sectarianism. To help fight this image, Mr Kinnoch himself has handwritten a special endorsement on Mr Coombs's election address, but a bigger plus may well be that Mr Coombs is not on Mr David Steel's list of "101 damnations," the Alliance list of hard-left Labour candidates.

The people had as to convince of his moderation are middle ground voters—and there are plenty in Hyndburn, where more than 88 per cent of houses are owner-occupied and where 37 per cent of the electorate is in the "skilled manual" category that deserted Labour last time.

However, Mr Coombs would give Mr Steel's list credibility if he pointed to his absence from it so he dismisses it as a smear on Labour. But the

tabloid newspapers which gave it prominence were evident in homes he was canvassing this week. His supporters hope that voters will draw their own conclusions.

Hyndburn's constituency Labour Party was fearful the part "the Liverpool factor" might play in the election and the general management committee tried to persuade Mr Coombs not to stand as a Liverpool councillor in a by-election last year.

He did so out of duty—if experienced moderates did not come forward to influence events, how could the problem of the Liverpool Militants be sorted out?

Mr Coombs's most significant experience came as leader of the now abolished Merseyside County Council. The forum was

one where accommodation between the parties was common, a sharp contrast with Liverpool, where Labour under Militant had a sectarian view of the world based on class conflict.

Even today on Merseyside, Conservative and Liberal counterparts praise him for fairness despite party political divisions. He is seen as a decent man and the chamber of commerce wishes he could have taken over as Liverpool City Council's leader to help restore a badly damaged image.

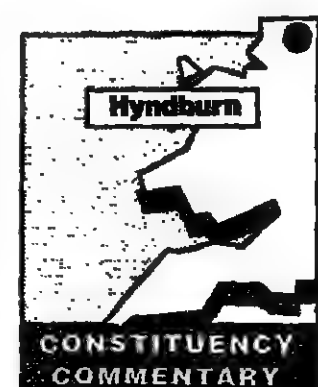
Professionally, it is not only leading Labour dissidents for whom he has acted. He represented Sir Trevor Jones after the Liverpool Liberal leader was taken to an industrial tribunal by workers dismissed from his ship's chandler

In Hyndburn he has to convince the "DL" voters who have been challenging him on their doorsteps. They will all get a special mailing before polling day stressing his record and his commitment to Hyndburn.

If he wins he has promised to live there and resign his Liverpool council seat. His daughter has already been accepted for September at the local further education college.

Will it be enough? Last time, Labour and Conservative each got 42.2 per cent of the vote. Now, Conservative support is holding up nationally, the Alliance is hardly a factor in Hyndburn, and Mr Hargreaves has local origins, plus a "case-work vote" to help him.

If Mr Coombs cannot overcome the "DL" factor, will he find 21 votes a bigger majority to overturn than it looks?



**HYNDBURN — candidates:** J. K. Hargreaves (C); K. Coombs (Lab); J. Stark (SDP); F. Smith (Green). 1983 election result: J. K. Hargreaves (C) 19,405; A. Davidson (Lab) 18,384; J. Bridgman (SDP) 6,716. C majority 21. Turnout 77.4 per cent.

## 'Pipe dream' turns to victory hope

LABOUR's victory in the election at the start of its campaign was for all but optimists a pipe dream, a senior trade union leader said yesterday.

Mr Paul Gallagher, president of the EETPU electricians' union, said that Labour's current position had reversed its early poll placing, attributing that to Mr Neil Kinnoch, Labour's leader. Mr Gallagher said this now made Labour's election a "realistic proposition."



## TECHNOLOGY

# Why research is in the driving seat

Peter Marsh finds a dynamic link between strategic planners, scientists and engineers in leading Japanese companies

THERE IS a secret at NEC, the Japanese electronics and telecommunications giant, that eludes even the most inquisitive visitor. This is the list of 30 or so "core technologies" around which the company bases its research and development (R and D) effort.

The list was drawn up after a two-year exercise which ended in 1985 and during which the company analysed its research requirements over the next decade.

The eight staff in NEC's long-range planning office, helped by 30 commercial managers working on the project part-time, looked at the trends in markets and technology that seemed likely to affect the 60 divisions of the company.

These divisions encompass different areas of electronics products and components, including home computers, telecommunications, office equipment and microprocessors. NEC's total sales in 1986 were ¥2,334bn (\$13.1bn), of which it spent 10 per cent on R and D. NEC's research review updated a similar exercise in

1975, and the company will repeat the process in 1993. Many companies might question the necessity of conducting such laborious inquiries into research requirements. Usually, business organisations (and also governments) decide on research thrusts more on the basis of "what feels right" than on rigorous analysis.

But Dr Mitsuaki Uenohara, executive vice president and research director, says the approach is eminently justified and is likely to pay off. The 1985-86 review, he says, "analysed what are the strategic product areas in each division and how far these areas can be extended. It tried to define the (technical) limits to the future and which technologies are the key to future advances."

Results from the planning exercise are meant to permeate throughout the company, into research and development divisions. NEC's basic research is conducted at eight laboratories, employing 1,300 researchers. About 70 per cent of the activity is "curiosity-driven" work, initiated by the company's own laboratory staff

though keeping within the general guidelines of the core technologies.

The rest is research commissioned by people in NEC's divisions. Such work could encompass, for example, the design of a new microchip required for a specific job.

An important part of the research process is liaison between the scientists in the laboratories and the 10,000 development engineers in the company's divisions. Continual feedback between these two groups is essential, says Dr Uenohara, so that a person in a laboratory "can guide his own R and D activity to fit in with corporate objectives."

Like NEC, Hitachi, another leading Japanese electronic and electrical engineering company, physically separates its research staff from development engineers.

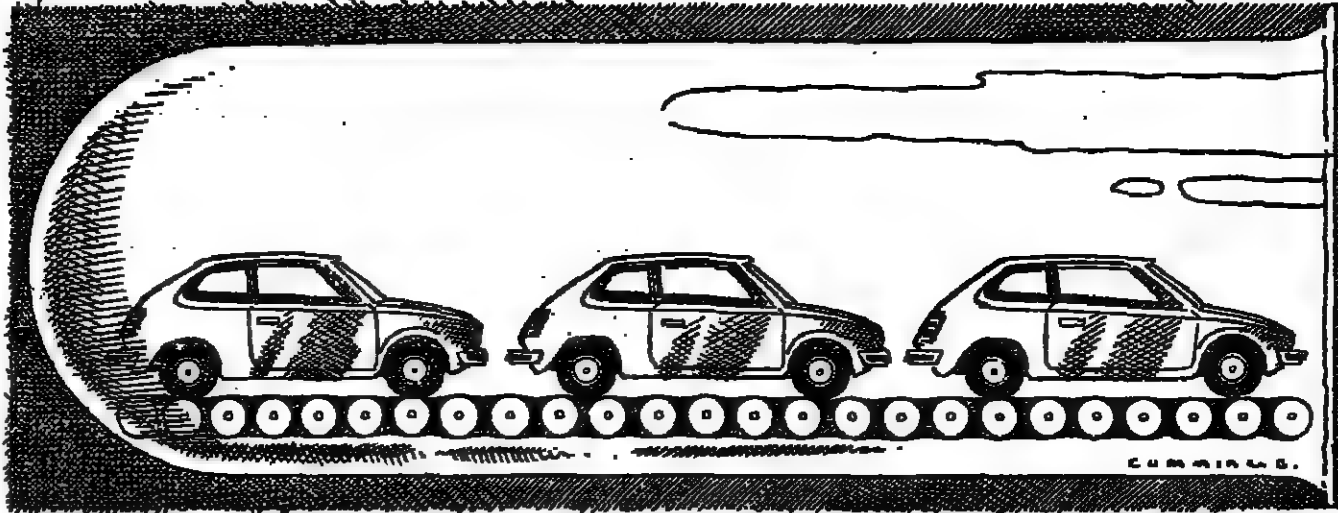
In Hitachi's case, 3,700 people work in eight laboratories but the work there is more development oriented than at NEC, with 70 per cent of the activity commissioned and the rest driven by researchers' initiatives, the re-

verse of the state of affairs at NEC. Hitachi, which has annual sales similar to NEC's, consequently employs fewer people in development at its divisions, a total of 7,300.

Nippon Telegraph and Telephone, Japan's main telecommunications carrier and one of the country's top research spenders, is in the process of changing its strategy for R and D. This year the company expects to spend ¥219bn (\$1.5bn) in this area.

The change in direction is partly a reaction to the liberalisation in Japanese telecommunications regulations, which has permitted NTT to move into new commercial areas and has brought it competition from other companies.

Dr Haruhiko Tsuchiya, senior manager at NTT's engineering strategy planning office, says:



"We want to ensure our development work is more closely related to business activities, as well as strengthen basic research."

To accomplish this, NTT is transferring 1,000 of its research staff from laboratories to work in the commercial divisions of the company.

By the time the moves are finished at the end of the summer, NTT will employ 3,000 in research and 2,000 in development, compared to 4,000 in research and only 1,000 in development prior to the changes.

According to Dr Tsuchiya, the switch in functions should bring R and D employees "closer to user requirements." At the same time, by making a clearer distinction between the two parts of R and D, the company should be able to concentrate

more energies on fundamental research.

Most companies recognise the distinctions between the three basic phases—research, development and commercial diffusion—which are involved as an innovative idea works its way into the market place. At Honda, the Japanese vehicles and power products company, the three stages are linked in a particularly fluid way.

To start with, in contrast to NEC, Hitachi and NTT, Honda's research and development people all work in one section of the company. This is an independent part of the group called Honda R and D.

Also, most unusually, the R and D staff, rather than other parts of the company such as the sales division, have the dominant say over which research projects proceed to de-

velopment and then to commercial products.

In Honda's automotive research, about 200 projects take place at any one time. These projects, lasting for between six months and 10 years, encompass a variety of disciplines, from safety equipment such as air bags to corrosion-resistant materials for engines.

Some 20 per cent of the individual programmes are cut short because they fail to come up with the required results. A further 30 per cent proceed to completion but their results are, says Mr Shimojima, "put in the refrigerator."

An example of ideas coming out of the cold was a new type of four-wheel drive system which Honda introduced in some of its cars last year. It had been the subject of research some eight years earlier.

Who, though, decides which research projects should proceed further? Mr Shimojima says this is largely a matter for the R and D company. The R and D group also takes the initiative in forming project teams to drive on a development. These teams, which work typically for about two and a half years, normally consist of about 30 people, 20 from R and D and the rest from sales and production.

In fact, this state of affairs is not as peculiar as it might seem. In many respects, the R and D group drives the whole of Honda and takes on marketing functions.

"Of course," says Mr Shimojima, "it can be difficult to persuade our sales people about the merits of a new technology. We put the utmost effort into this. Also, in Honda's case, a lot of our R and D work has been shown in the past to be highly marketable—so they (the sales staff) have a tendency to believe us."

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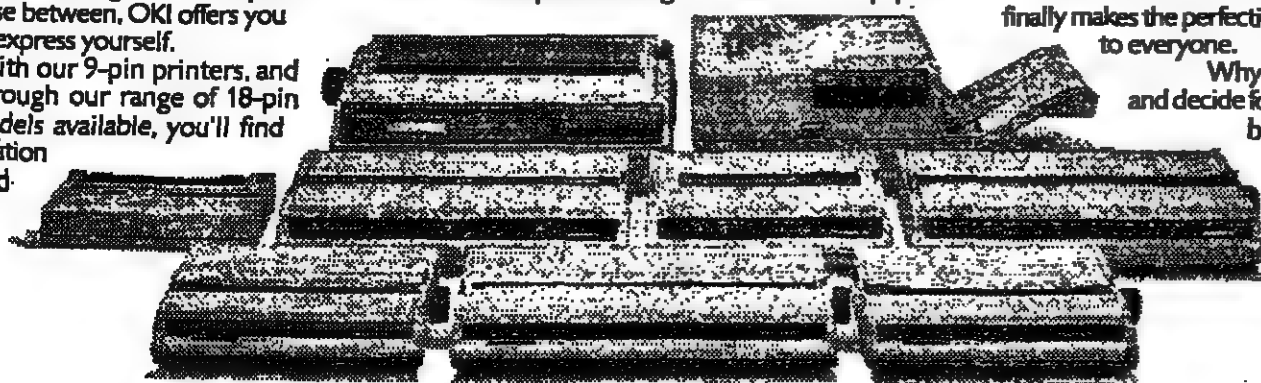
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### WORTH WATCHING

Edited by Geoffrey Charlish

#### Joint attack on imports

AUSTRALIAN TECHNOLOGY is taking two steps forward, both in conjunction with well known UK companies.

The country's first semiconductor plant is to be built in Sydney as the result of a \$435m joint venture between the New South Wales Government, Amalgamated Wireless Australasia (AWA) and British Aerospace of the UK.

AWA is a leading Australian electronics and communications company and a prime object of the plant is import substitution. It is hoped that AWA will win 25 per cent of the \$390m Australian semiconductor market. At the moment, the country imports most of its needs. In London, British Aerospace says that although there is no firm commitment yet, the company's Australian subsidiary hopes to invest in and use research facilities at the plant, particularly with respect to application specific integrated circuits (ASICs).

It has also been announced that a Western Australia consortium and Rolls Royce will make high technology gas turbine blades in Australia in a \$415m venture. The new company, Turbine Components Australia, will use Rolls Royce nickel alloy casting technology and is looking forward to a \$450m export market over the next five years.

#### Chance to rent CAD system

US-BASED computer-aided design (CAD) company Computervision is to offer its systems to customers in the UK under a rental scheme, enabling them to avoid the expense of outright purchase.

The scheme will allow users to take advantage of new technology as soon as it becomes available and enable them to upgrade or exchange equipment without the usual financial penalties or trade-in problems.

As well as providing a simple upgrade path for existing users, Computervision hopes the scheme will encourage CAD users in young and growing companies that cannot afford outright purchase of some of the more expensive machines.

#### Cash injection for Moth Eye

SINCE THE announcement in November of the setting up of UK company Plasmon and its development of an improved form of "write only" optical disk, the company has been striving to move from pilot to full-scale commercial production.

Its original parent, Combined Technologies Corporation of the UK, withdrew from the project. But now Plasmon has had an injection of \$3m from Rothschild

Ventures, from the venture capital arm of Agfa-Gevaert in Belgium and from a number of UK financial institutions.

Plasmon's recording material is known as Moth Eye since at electron microscope magnification, that is what it resembles. The surface is a regular pattern of microscopic pyramids, the dimensions of which mean that light striking them is absorbed, even though the surface is plated with a reflective ... platinum ... layer. ... To record, a laser beam focuses a few of the bumps to make tiny reflective marks in digital code. The surface works in the opposite sense to the mainstream technology where a reflective surface is darkened by the beam.

The company believes that, since the production process is inexpensive and the platinum surface has a very long life, it will be able to hold its own with major companies like Hitachi, Kodak, Philips and 3M that are now geared up to offer the conventional materials. Volume production is planned for the end of this year and Plasmon has already set up a second agreement with Japanese company Kuraray.

#### 'Software cam' speeds design

QUIN SYSTEMS, a UK company, has developed an electronic unit which can take the place of cams in many kinds of machine design. Cams are often used as controllers in mechanical systems to regulate the speed, acceleration or position of drive shafts.

The purpose of Quin's "software cam" is to program a motor or a stepping motor to drive the controlled shaft directly. In many cases a cost reduction can result but there is also the advantage of flexibility during development. By altering the program, the "cam" profile can be changed at will and new products developed more quickly.

In some production machinery, such changes need to be made on the production line by changing a set of cams. With the Quin device, it is simply a matter of loading a new program. In flexible manufacturing systems, for example, a library of programs can be held to suit the product to be made.

#### The flexible telephone

TWO FURTHER examples have appeared of the way in which the office telephone is taking on a new life with other business functions.

The Fax-110 from Japanese company Canon is a Group 3 facsimile machine with integral telephone handset and is small enough to sit easily on a desk in the office or at home. For fax or phone numbers it has single key auto-dialling for 32 locations and redialling of busy numbers. It can receive or transmit an A4 document to any other Group 3 machine in 17 seconds. The instrument costs £1,725.

Similarly, International Telecomputing in the UK is offering the EMI20, a £495 phone instrument with number memory and redialling, combined with a "qwerty" keyboard and printer to allow it to handle telex and electronic mail. It is intended for use with the Mercury Link 7500 electronic mail network, through which telex can be accessed.

CONTACTS: Computervision: UK office, 0256 58133. Plasmon: UK, 0763-61466. Quin Systems: UK, 0734 771077. Canon: London office, 020-7172. International Telecomputing: UK, 021775 6161.



## APPOINTMENTS

## Cookson group chief executive

Mr Michael Henderson has been appointed chief executive of the COOKSON GROUP. He joined the group in 1985. Five years later he was appointed finance director of the Cookson Industrial Materials and in 1987 was promoted group treasurer and personal assistant to the chairman. Two years later he was appointed to the board.

Mr R. T. (Tom) Matthews has been appointed chairman of TAYLOR WOODROW CONSTRUCTION (MIDLANDS), Stafford, from July 1 1987. He succeeds Mr Jim Miller, who will become life president so that he can concentrate on other activities in the group. On the same date, Mr R. G. (Pete) Munday will become deputy chairman and managing director of the company.

Mr John Conna has been appointed managing director of WINGCATON CONTRACTS. He was commercial director. Mr John Kaiser, operations director, is promoted to director-general manager of Venture Hire.

Mr Martin Tolhurst has been appointed operations director for shorthaul container operator SEA-WHEEL. He joined as general operations manager in 1985.

Mr David Poole has been appointed managing director of INVEST INTERNATIONAL HOLDINGS, Luxembourg holding company of the Collins Bonomi Group, where he will be based. Mr Poole was, until January, chief executive of ANZ Merchant Bank and Capel-Cure Myers. Mr Francis Black has been appointed managing director of Invest International Holdings. Mr Black was finance director of the international group of Allegheny International Inc. Mr Ian Mackay is joining Invest as an assistant director, from Hambro.

BALFOUR BEATTY has appointed two regional directors to the board of Balfour Beatty Building: Mr Graham Evans and Mr Bill Latta.

Mr Bernard Owens has been appointed a director of the CORNISH BREWERY CO, a principal subsidiary of J. A. Devanish.

Mr Alexander Morrison has been appointed an executive director with responsibility for ROCKWOOD HOLDINGS' defence and security activities. He was founder and managing director of Defence Systems, a specialist defence and security company.

## CONTRACTS

## Improving the Imperial War Museum

Further work, worth £2.5m, has been awarded to TAYLOR WOODROW MANAGEMENT CONTRACTING by the Property Services Agency for additional redevelopment work at the Imperial War Museum. This comprises Phase 2 and 3 of Stage 1, which brings the total value of TWMC work currently underway at the museum to £2.5m. It will allow the overall completion of Stage 1 due at the end of 1988.

Display space is being tripled by covering the central courtyard to provide new galleries, including a 23-metre-high display hall - where, among other exhibits, a V2 rocket will stand upright. Aircraft will be suspended from the structural frame. The surrounding floors are being extended into this courtyard, creating balconies. A new art gallery will have humidity and temperature closely controlled. A new-look entrance hall is being built, as well as a shop and cafeteria, toilets for the disabled, fire escapes and new environmental services.

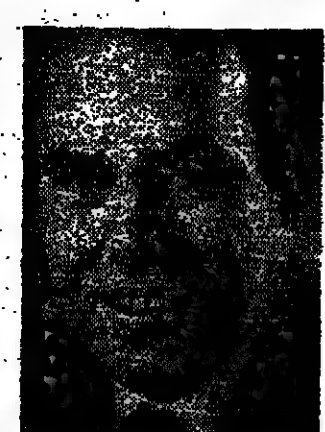
RUSE & TOMPKINS has started a US\$5m (£3m) retail and warehouse development totalling 86,000 sq ft at Virginia Beach near Norfolk, Virginia, US, the site of the largest complex of naval bases in the world. The development consists of 25,000 sq ft of retailing and 58,000 sq ft of "mini warehouse" space serving the transient population of the local naval installation. Completion is scheduled for early next year. Joint developer partner is local developer Michael E. Reeh.

RAT's other east coast schemes include a 2m sq ft office park near Princeton, New Jersey, where the first of 12 buildings was sold last year for \$28m, and a 400,000 sq ft shopping centre in Raleigh, North Carolina, on which work is about to start. Involvement in both schemes is in joint venture with Pocom Development Associates, headed by Rodman Rockefeller.

ACSIM (SOUTHERN), North Cheam, has won a contract worth over £1m for mechanical and electrical services at Sunbury.

BALFOUR BEATTY CONSTRUCTION has been awarded its third contract for the construction of the A513 Hayes Bypass. Placed by the London Borough of Ealing, it is for construction of a roundabout, five pedestrian crossings, access ramps, footpaths, cycleways and a central concourse. The order is worth £3.4m. Work has started, with a two-year construction period.

A £4.2m 18-month contract has been placed by the Devon County Council for construction in flexible pavement of a bypass about 2 km long. It will consist of a single 7.3 metre wide carriageway with a crawler lane over part of its length, a two-



Mr Michael Henderson, group chief executive of the Cookson Group.

which was acquired by Rockwood Holdings in October 1986.

The Duke of Kent has been appointed non-executive director of VICKERS.

SILICONIX has appointed Mr Keith A. Barnes as company secretary. In addition to his current duties of European financial controller, Siliconix Limited is based in Swansea and is the European headquarters of Siliconix Incorporated, California.

Mr Mark Seale will be leaving the Richards Longstaff Group, where he was managing director of the unit trust portfolio management service, to join the THORNTON GROUP board.

LONDON & BULL MARITIME INSURANCE CO has appointed Mr Stephen Thistlewood as managing director (subject to approval by the Department of Trade). Mr E. D. Rainbow remains on the board as chairman.

Mr Stephen O'Shea, managing director of Halma subsidiary Apollo Fire Detectors, Havant, has been appointed assistant divisional chief executive of the parent company's security and office technology division. Mr O'Shea will retain executive responsibility for Apollo. In his divisional management role he has also been appointed chairman of Volumatic Coventry-based Halma subsidiary specialising in security and surveillance equipment.

J. H. MINY & CO has appointed Mr Khaldoun Khuri as a divisional executive director.

Mr Michael A. Jones has been appointed a director of BUTCHER, ROBINSON & STAPLES, Lloyd's broker. Mr Jones, formerly a director of Heath Fielding Insurance Brokers, Fife, is joining Money & Stewart, Fife, Insurance & Reinsurance Brokers, and founder of Fielding, Smatton, Jones (Agencies), will be a divisional managing director.

span reinforced concrete bridge and a box-section subway.

G. DEW & CO, Oldham, which recently merged with Allied Plant Group, has won over £10m of orders across the board, the major share going to the building division which has won contracts worth \$94m ranging from the design and construction of a new wing for G. V. Home Furnishings (Dorma) at Bolton (£1.5m); an extension to ICL's factory at Tameside (£345,000); extensions for Harbour Lane Mill Company, Oldham (£375,000); a warehouse for Flexible Reinforcements, Clitheroe (£197,000); two contracts awarded by Ingersoll Engineers Inc, Rugby, on behalf of clients SFP Pumps for a factory at Coleford and VSEL, Barrow, for £1.55m and \$363,000 respectively, and construction work for BSW, a new development at Chippenham, value \$850,000. The balance is made up by a contract for extensive alterations and refurbishment to United Glass Containers offices at St Albans and a number of smaller contracts in Greater Manchester.

TILBURY CONSTRUCTION has been awarded contracts by Wessex Water for the civil engineering aspects of the headworks and 1.4m Rcd pumping station. These contracts form part of the Minibed marine treatment scheme in which sewage flows will be intercepted and pumped to a new headworks at Dunstons Marsh for preliminary treatment and thence through a new sea outfall.

The headworks include construction of a steel-framed main building and houses with piled sub-structures, and three underground reinforced concrete effluent storage tanks constructed and supported on piled foundations. Ancillary works include pipelines, roadworks, and landscaping. The main pumping station is a steel-framed building with a reinforced concrete sub-structure. Site works include drainage, fencing and roadworks. Linking the pumping station to the headworks, some 1.5 kms apart, will be a 300 mm diameter pumping main.

HILL ROBERTS, Bedfordshire-based subsidiary of the C. P. Roberts Group, has won two contracts in St Albans worth more than £4m. Work for Chequer Street Developments on housing, offices and shops at the Maltings worth £2.1m is due for completion in December. Hill Roberts has obtained the contract for fitting out the library within the Maltings complex - worth £700,000. Again the client is Chequer Street Developments, and the project is due for completion in December. A further contract has been obtained for the construction of an office block in London Road, St Albans, for Farmcote Developments. The design and build project worth £1.2m will be completed in May 1988.

## EURICO SPA v PHILIPP BROS

Court of Appeal (Sir John Donaldson, Master of the Rolls, Lord Justice Stephen Brown and Lord Justice Croom-Johnson): May 15 1987.

WHERE BUYERS of cargo at sea nominate port of discharge from a range of ports agreed expressly between them and the sellers without qualification, they do not incur demurrage liability if the ship lies too deep to enter the nominated port, although, having regard to the ship's draft and water's depth, both parties and the shipowner should have known that entry would be impossible.

The Court of Appeal so held (Lord Justice Croom-Johnson dissenting) on an appeal by Eurico SPA, sellers of rice, from Mr Justice Staughton's decision (1986) 2 FTLR 333 that the buyers, Philipp Bros, were not liable for demurrage incurred when the Epaphus was unable to enter port.

SIR JOHN DONALDSON, MR said that vessels seeking to enter the port of Ravenna in Italy must not draw more than 28 feet. In May 1981 the Epaphus, carrying a cargo of rice, drew 28 ft 7 in.

The consequent need to lighten at Ancona, the presence of insects in the rice, and the alleged presence of rats, all combined to produce a claim

by the sellers of the rice against the buyers for demurrage.

The claim was referred to arbitration under the rules of the London Rice Brokers Association. The umpire awarded the sellers \$99,950. The Council of the Association affirmed the award. On appeal to the High Court, Mr Justice Staughton found in favour of the buyers. The sellers now appealed.

The buyers bought the cargo at sea. The contract provided that it should be delivered to them outside at "one main Italian port to be declared..." The buyers' declaration was for Ravenna.

There was no doubt that the buyers, the sellers and the shipowners all either knew or could without difficulty have ascertained that the draft limitation on Ravenna was 28 feet, that the vessel would draw more than 28 feet, and that there was no way in which that draft could be reduced without lightning at Ancona.

In ordering the vessel to Ravenna the buyers were thus giving an order with which the sellers could never have complied.

Mr Grace for the sellers submitted that in those circumstances Ravenna was not a permissible nomination. He referred to Scrutton on Charterparties 19th ed article 66, where it was stated that "if... the charterer will only name a port which is impossible of access he commits a breach of con-

tract... authority for which was said to be *Olivebank* [1919] 2 KB 162 and *Reardon Smith Line* (the "Vancouver strikes" case) [1963] 1 QB 42.

In the *Vancouver strikes* case Lord Justice Willmer said at page 110 "Subject to an implied obligation not to nominate an utterly impossible port" it was well established that where a charterparty provided a choice of named places for loading or discharge, the charterer was free to exercise his option as he chose.

Mr Merriman for the buyers said there was no analogy between a contract for the sale of goods and a charterparty and that "utterly impossible" connoted that the port had ceased to operate as a port, and not simply that it could not be used by a particular vessel.

There was no direct authority on the problem.

The starting point was that parties to a contract were free to agree on any terms which they considered appropriate, including a term requiring one of the parties to do the impossible, although it would be known to be impossible for parties knowingly so to agree.

If they did so agree and it, as was inevitable, that one party failed to perform, he would be liable in damages.

Any court would hesitate for a long time before holding that as a matter of construction the parties had contracted for the impossible, particularly in a commercial contract. Parties to such contracts could be ex-

pected to contemplate performance, not breach.

The tools available to a court in that exercise of reluctance were construction of the express terms used by the parties, and implication of a term which qualified but did not contradict the express terms.

In its struggle to make common sense prevail the court could not say that the parties agreed on something, however sensible, when their chosen words showed clearly that they agreed the exact opposite.

In the present case the parties had expressly chosen to limit the buyers' choice in a particular way, namely to "main" Italian ports. That could not mean "some" main ports, and the plain implication was that the parties were satisfied, albeit wrongly and even negligently, that the vessel could enter any main Italian port.

It seemed impossible to construe "main Italian port" as "all main Italian ports except Ravenna" or to imply a term that, notwithstanding the express terms of the option, the buyers could not choose Ravenna or any main port with a draft limitation of less than the vessel's draft on arrival.

That conclusion had however to be reconciled with the dictum of Lord Justice Willmer in the *Vancouver strikes* case, and with the Court of Appeal decision in *Olivebank*.

In *Olivebank* the charterers had the express option of nominating a discharging port

in the UK or one of four named Danish ports, including Aalborg. They nominated Aalborg, knowing that entry was illegal under British wartime legislation.

The court held it was a bad nomination and implied a term that the charterers should nominate a port which would give the shipowners an opportunity of earning freight at the nominated destination.

The explanation of that apparent inconsistency was that any implication that orders could never be given to go to Vancouver in the *Vancouver strikes* case, or to Aalborg in the *Olivebank*, would have contradicted the express terms of the contract. But it would have been otherwise if the term to be implied was that the vessel could be ordered to Vancouver/Aalborg, unless the port became impossible after the contract was made.

Such an implied term did not contradict the express terms of the contract, but merely modified them by making them subject to an implied exception which might or might not take effect. In each case the "impossibility" arose after the date of the contract.

If that were right, the cases represented no departure from principle and were not material to the present appeal. It would have been different if, subsequently to the making of the contract, a sudden storm had silted the harbour at Ravenna and reduced the maximum permissible draft. Accordingly Mr Justice

Staughton's decision on the main point was affirmed. An appeal and cross-appeal relating to the infestation of insects and rats were dismissed.

LORD JUSTICE STEPHEN BROWN, agreeing, said that the terms of the contract were clear and specific. The sellers specified a "main Italian port." The judge was right to hold that Ravenna was within that category. He was also correct to hold that "main" was intended to limit the buyers' choice. There was no basis for implying any further limitation. Analogy with charterparties was not apt or persuasive. The facts of the *Olivebank* were very different from the present case. There the "impossibility" was a supervening event.

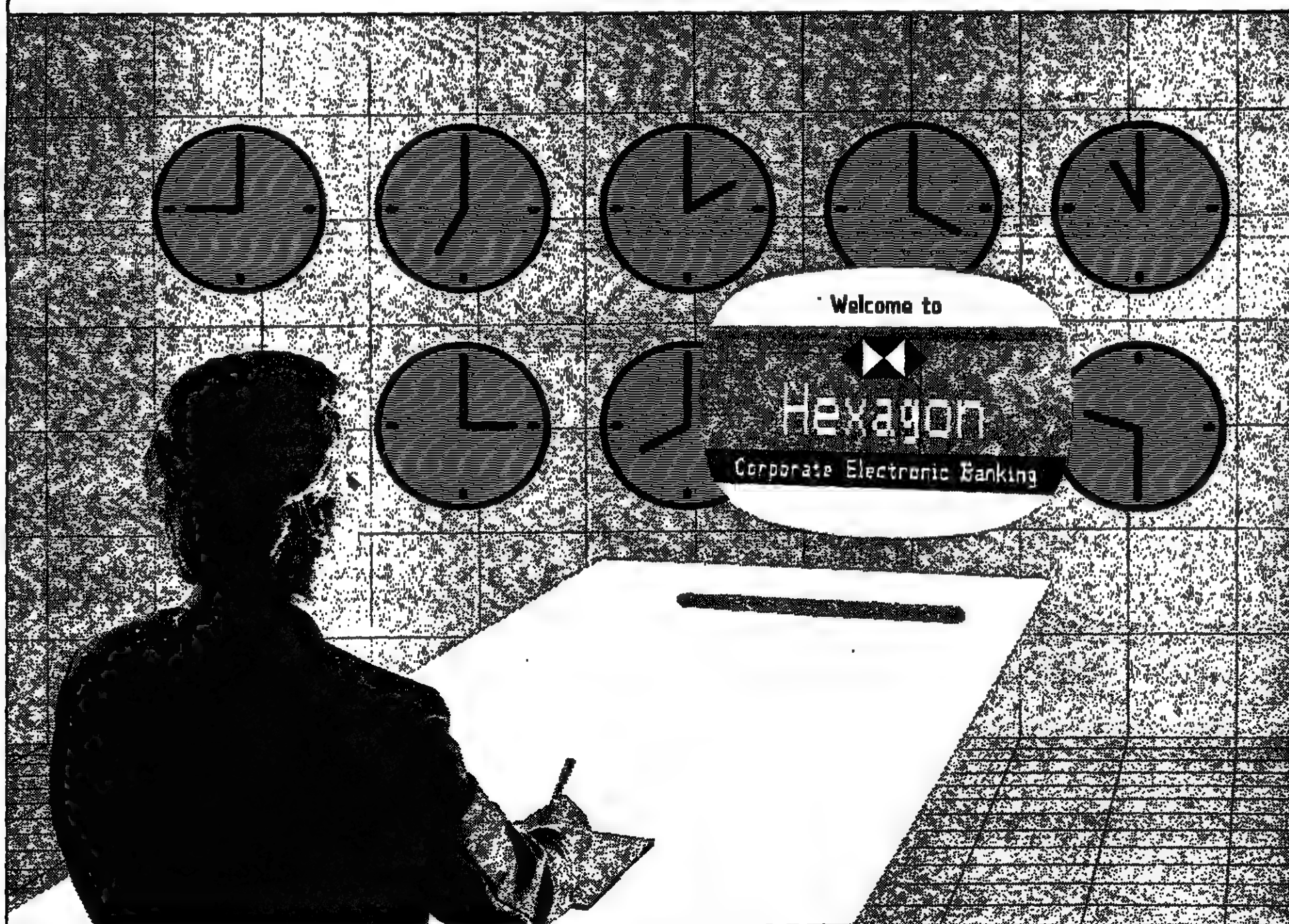
LORD JUSTICE CROOM-JOHNSON, dissenting, said there was no inconsistency in the sale contract if one implied a term that the nomination to a main Italian port should not be a nomination to an "impossible" port. It gave commercial sense to the contract. But for the nomination there would have been no difficulty in performing the contract. The *Olivebank* was not distinguishable.

For the buyers: Nicholas Merriman (Middleton Potts & Co).

For the sellers: David Grace QC (Ingletons Brown Bennison & Garret).

By Rachel Davies Barrister

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## BSC Industry's job creation

## A steely resolve to promote enterprise

Charles Batchelor on help for a Scottish unemployment area

JIM and Isabel McLachlan both took voluntary redundancy from British Steel Corporation seven years ago at a time when BSC was making savage cuts in manning levels. Jim, now 43, had been a buyer in the corporation's Glasgow offices and his wife had been a sales ledger clerk.

They now run Riva Footwear, a £300,000 turnover company making and retailing shoes, from a small factory unit at Clyde Workshops, some six miles east of Glasgow's city centre.

"I had hoped to find another job after leaving BSC but I was shocked to discover that I was either too old for many of them or that I would have had to lower my sights to assistant buyer," says McLachlan.

He began selling jewellery from a weekend market stall, switched to shoes when a fellow trader sold up, and went into manufacturing when he had difficulties obtaining regular supplies. He now employs four women full-time and attends markets seven days a week around Glasgow.

Riva is one of 65 small companies now housed in the non-descript cluster of buildings which used to make up BSC's Clyde Ironworks. At its peak the works employed 1,500 people supplying BSC's local steel-making plant but in the late 1970s it was shut down.

In 1979 BSC Industry, the company set up by BSC to create new jobs in areas hit by the closure of steel plants, turned the former ironworks into a managed workshop for local small firms. The Clyde Workshops is now home to a collection of traditional engineering businesses, printers, electricians, and computer-based companies employing about 300 people.

BSC Industry has since gone on to establish eight other managed workshops in steel closure areas around the country and is to open the latest of these at nearby Coatbridge later this year.

Established in 1975 before the main wave of steel industry cutbacks, BSC Industry now operates in 18 "opportunity areas" from Lanarkshire in the north down through Harle-

pool, Sheffield and Corby to Glamorgan and Gwent, Wales. It has invested more than £30m in providing soft loans, advice and premises to help 2,300 businesses.

But while the McLachlans went into self-employment after leaving BSC, only 7 per cent of the businesses helped by BSC Industry are run by people with a steel industry background.

"You could not go in for individual job creation on an employer-by-employer basis," explains Roger Thackeray, chief executive of BSC Industry. "We have never tried to persuade former steelworkers to set up in business—in some cases we have dissuaded them from it."

"Anyone employed for 20 or 30 years in a large company is not going to have the skills which make an entrepreneur. What we are engaged in is diversifying the economic base of local communities which had relied on one industry."

BSC Industry does not even insist that the small firms it helps employ former steelworkers though it regards it as a bonus if they do. It concentrates on providing a package of advice and in some cases financial support to back any business with growth prospects.

John Johnston, 33, and a former Glasgow fireman, runs Waterbed World from another small unit on the Clyde Workshops site. He believes there is a growing market for waterbeds in the UK but is unlikely to employ any former steelworkers in the course of exploiting it.

"I wanted young people for the relatively unskilled job of making wooden frames for the waterbeds," he says. "I wanted someone who could train, not someone taking me what to do. I don't think the money I am offering would have appealed to a former BSC worker anyway."

He currently employs two youngsters full-time and one part-time making two to three waterbeds a week and expects turnover nearly to double this year to £80,000.

The bulk of the steel closures took place in the early 1980s and the men and women who lost their jobs then have either

accepted early retirement or found other employment. So despite BSC Industry's good intentions, there are not that many former steel corporation employees left to help.

BSC Industry is now targeting some of its programmes at the children of the steelmaking generation who might be expected to go into the industry themselves but now find this avenue closed.

But not all of the new jobs are destined for the young or the recently unemployed. The Scott's Kitchen, a vegetarian and wholefoods company set up by former teacher Ian Scott and his wife Clair, includes a number of the long-term unemployed in its workforce of 14.

Scott's, which moved to a small modern factory on the Motherwell Food Park from the family flat just 20 months ago, is expanding from frozen health foods into a range of cakes and expects turnover of £100,000 in the year to August.

Broadening the economic base of the community may offer better long-term prospects than simply finding new jobs for redundant steelworkers, but are small firms the answer to unemployment on a massive scale?

The small companies based at Clyde Workshops employ only one fifth of the former ironworks at its peak. BSC has shed 120,000 jobs throughout Britain since 1979 and BSC Industry, which feels job-counting can be misleading, only claims to have helped replace half of them through its job support programmes.

Laurence McGarry, chairman of Strathclyde Regional Council's Economic and Industrial Development Committee calculates that the region has lost 155,000 manufacturing jobs—47 per cent of the total—since 1979.

"You can't rebuild the economy on the basis of everyone frying hamburgers or expect service jobs to replace those in manufacturing," comments McGarry. "You are talking about a lifetime's work to recreate the lost jobs. I'm not knocking small firms or self-employment but you must keep it in perspective."

In the 12 years that it has been in business BSC Industry



Jim McLachlan, a one-time BSC employee, now runs Riva Footwear from Clyde Workshops near Glasgow

has undergone major changes. It last year appointed regional managers to co-operate more closely with other local agencies than was possible in the past from its head office in Croydon.

John Fairlie, BSC Industry's Scottish regional manager, has close links with the Lanarkshire Industrial Field Executive (LIFE) which carries out much of the work of training and advising would-be entrepreneurs.

BSC Industry has also modified its support programmes. More effort now goes into helping existing businesses expand rather than supporting more risky start-ups (though in April it also launched a £100,000 seed capital fund to help very small businesses).

The most ambitious project in the Glasgow area to date has been helping Borglase, an old-established glazing company, to install a £2m laminated glass plant to replace glass it had previously imported from the Netherlands. BSC Industry is only putting up £20,000 but it has helped Borglase negotiate funds from a large number of other agencies.

David Borsland, joint managing director and son of the company's founder, expects to take on 40 more employees after two years in addition to the 68 currently employed.

In the longer term, Fairlie believes, Strathclyde will only improve its economic base if it can invent, develop and market genuinely new products and processes.

The region's best hopes for

new technology companies lie with the Strathclyde Business Innovation Centre, a sort of high-powered enterprise agency specialising in backing inventive new companies. BSC Industry helps fund the centre and calls on its resources when it comes across a suitable project.

The Strathclyde centre is currently providing technical advice, training and access to venture capital funds to companies which are developing an anti-fouling paint, a machine for cold-bending pipes and small wind turbines.

"We are not a traditional job-creation outfit," says Douglas Martyn, the chief executive. "Our main aim is to look for high-value, wealth-creating projects."

BSC Industry's work is important enough in the steel closure regions but it has wider applications. British Shipbuilders, British Coal and British Rail Engineering have all set up similar organisations to soften the impact of plant closures.

The British experience has also attracted interest from abroad. Steelmen from Italy, Spain and West Germany have all made trips to BSC Industry's "opportunity areas" to see if its techniques could be applied on the Continent.

BSC Industry, Canterbury House, 3-4 Sutherland Road, Croydon CR9 2JL. Tel: 01-885 2211. Strathclyde Business Innovation Centre, Unit A3, Building 1, Templeton Business Centre, 62 Templeton Street, Glasgow G40 1DA. Tel: 041-894 8288. LIFE, Old Town Hall, High Road, Motherwell ML1 5PU. Tel: 0698 0022.

## UK venture capital: larger —less risky

BRITISH VENTURE capital had an active year in 1988 despite some concern both inside and outside the industry that it was failing to provide sufficient backing for start-up companies.

Members of the British Venture Capital Association invested £428m in 708 companies last year—increases of 31 and 11 per cent respectively, according to the association's latest annual review. More of these funds went into British companies—90 per cent compared with 88 per cent the year before with a corresponding drop in US investments from 12 to 9 per cent. Investments in Continental Europe fell back from 2 per cent to just 1 per cent.

In the UK only, the association's 77 full members put £264m into 600 companies. Of the total investment £300m went into companies which had not previously received venture capital finance. The average size of new investments was £450,000 compared with £368,000 in 1987. Follow-on investments were smaller—£272,000 on average last year and £182,000 in 1987.

Buy-out, buy-in and acquisition funding became the largest category in 1988 accounting for 45 per cent of all spendings compared with 37 per cent the year before. These figures appear to confirm the industry's move to larger and less risky investments.

But funds devoted to start-ups and early stage financing also increased, rising to 23 per cent of all investments from 18 per cent in 1987. The main decline came in expansion funding which fell from 38 to 27 per cent of the total. Consumer-related companies were again the single most important industry sector, accounting for 20 per cent of all investments. Computer-related investments slipped from 19 to 11 per cent of the total, while electronics-related investment was down from 12 to 8 per cent.

The south-east and greater London were slightly less dominant in overall financing, but still accounted for nearly two-thirds of the total investment.

Report on Investment Activity 1988 compiled by Venture Economics. £10 from BPCA, 1 Surrey Street, London WC2R 2PS. Tel: 01-336 5702.

## An enterprising network

Charles Batchelor reports that some agencies across the country are pooling information

FINDING SMALL sums of equity capital for a start-up or a growing business is more difficult than raising larger sums. The banks in the main do not take equity stakes while the venture capital industry only interested in providing bigger amounts.

One answer to this problem has been the marriage bureau run by several enterprise agencies which put private investors together with businessmen seeking small amounts of capital. The investors frequently have business skills as well as cash to contribute to the firm in which they invest.

Five enterprise agencies have now got together to exchange information on available investors and companies seeking funds to increase the opportunities for finding such a match. LINC, the Local Investment Network Company, has been set up by the Aberdeen Enterprise Trust, The London Enterprise Agency, Manchester Business Venture, The Midway Enterprise Agency (representing other Kent agencies) and the Northamptonshire Enterprise Agency.

These five agencies are creating a common register of investors, both individuals and venture capital companies, and will publish a monthly national bulletin of business opportunities. For practical reasons they will continue to hold investors' meetings—at which investors meet the businessmen seeking funds—on a local basis.

The idea of the marriage bureau was pioneered by The London Enterprise Agency in 1980 but both Aberdeen and Manchester have run a similar service for the past two years.

One advantage of the link-up is that some of the money from the south-east and the other more prosperous regions may be channelled to areas where less money is available.

Most of the companies the marriage bureaux deal with are looking for less than £50,000—an amount venture capital funds find uneconomical to provide.

Potential investors will be charged £50 a year which covers their subscription to the bulletin and inclusion in the investor database. Companies seeking funds through LINC must be prepared to offer equity in exchange for the investment.

The enterprise agencies participating in LINC hope others will join in so the venture will be able to give nationwide coverage.

Contact: Aberdeen, John Freebairn (Tel: 0224 582589); London, Peter Lovell or Carole Roschke (Tel: 01-336 3000); Manchester, Derek Gower (Tel: 061-236 0153); Midway, Guy Sibley (Tel: 0634 400301); Northamptonshire, David Mann (Tel: 0604 37401).

## Avoiding con-men

STARTING UP and running a small business is difficult enough if all your customers and suppliers are completely honest and efficient. If they are not—and most people encounter the crook or the incompetent at an early stage in their business career—life becomes even more difficult.

Business Rip-Offs and How to Avoid Them is an alternately horrifying and amusing account of the dodges that many people are prepared to try and make some useful suggestions on how to deal with them.

It is hard to imagine that any one person (and his close circle of friends) could have

encountered quite so many con-men in a business career but Tony Attwood, the author, has learned some instructive lessons.

Most of the ruses tried—the "we never received it" ploy, the "we didn't order it" trick, the "see you in court" defence—can be countered by careful maintenance of records of all transactions and by using them with determination.

Many businesses which have been swindled are just not prepared to make the effort to pursue the conman through lengthy correspondence and if need be, the courts. This book shows that persistence usually pays.

This is a useful and readable book for the new businessman who should not be put off by the cheap cover design.

Kogan Page, £4.95.

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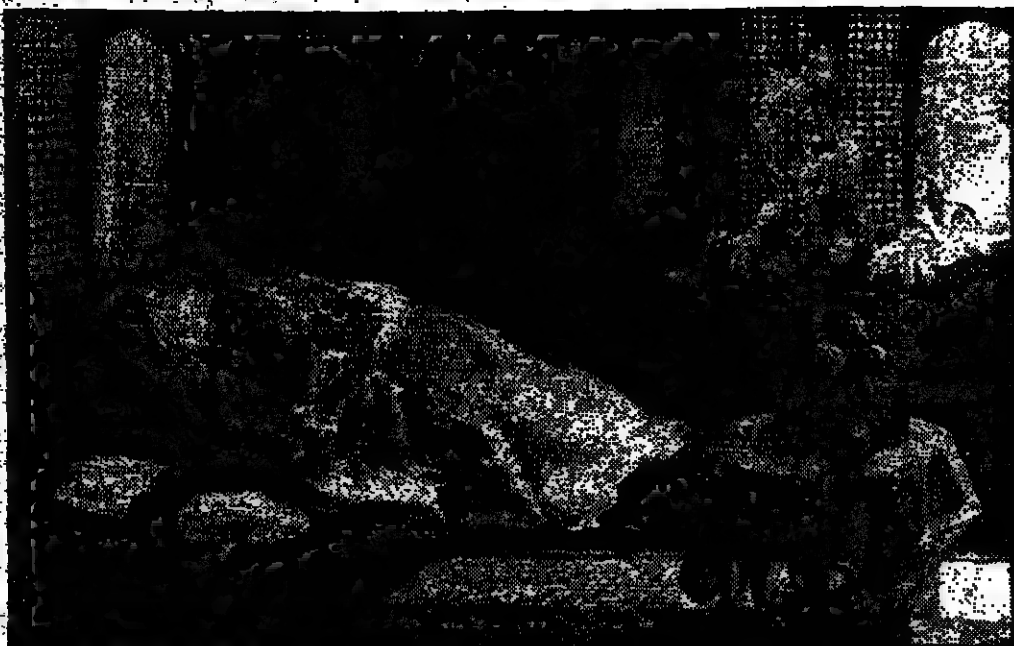




## THE ARTS

Manchester City Art Gallery/William Packer

## Delights of watercolour



The Sista, by J. F. Lewis

The Art of Watercolour, is an exhibition, first shown in Norwich but organised by the Manchester City Art Gallery, where it is now on show in its new home, the Manchester City Art Gallery, until June 28 — in association with the Arts Council, and sponsored by Colnaghi. It is a study in the way, it suggests, investigation of a sort into the nature of the medium.

But it is in no sense a dry exercise—how could it be?—in technical analysis or didactic exposition. It serves a didactic purpose, certainly, but never at the expense or independence of the works themselves, shown here and celebrated above all for their own sake. The demonstration is one of excellence, and of an exquisite beauty, set out in such a way, to point as to the varieties of the work, and to the similarities of practice and expression to which watercolour has been put in Europe and America within the past 300 years.

The differences are there in plain sight for any visitor, but the hints are gentle, unforced and entirely voluntary. The visitor who so chooses will emerge, none the less, with a sense of the way in which the medium has been used, and to what ends. It is a thorough delight. The exhibition, at around 100 items, is small enough for the visitor to see all the work, and to spot individual instances of excellence or omission in all parts of the show. The evidence is there, in plain sight, for any visitor, but the hints are gentle, unforced and entirely voluntary. The visitor who so chooses will emerge, none the less, with a sense of the way in which the medium has been used, and to what ends. It is a thorough delight.

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Painting in watercolour, in Britain at least, is a tradition that has become shrouded in the most curious mystique and superstition. The belief is held, and shared, no doubt, by the world at large, that though they know nothing of the art, they know something of the mystique. The mystique, however, is with what the cartoonist, Font, characterised as "The Gift for Water Colours." Font was a great comic draftsman in a long and robust tradition which goes back to Hogarth and Hoger, for surely we have seen her ourselves, his little old lady still sits at her easel in the middle of the quaint and cobbled rue de Valenciennes, in Paris, looking on at the world.

It is all to be explained away simply by our cult of the amateur, the idea that an easy equality is to be won by proficiency and having a go? I can always leave off talking, and hear a master play; there is certainly a propensity

in all the arts to respond to demonstrable technique for its own sake, safe from the embarrassments and imponderables of idea, feeling, experience and aesthetic judgment, and watercolour is as manifestly technical as it is accessible to popular essay.

Not everyone has tried the clavi-chord, shall we say, and the mastery of it remains beyond reasonable imaginative reach, but everyone has held a brush and had a go. The teasing difficulties of the medium come less enough not only to be respected as ever, but also to be addressed if given opportunity or inclination—I could, if I would, as it were.

The truth is more simple and gross. Artists tend to use the medium of materials that suit them best, or best at the particular time. They see little point in making for themselves gratuitous difficulties in a profession already beset with quite enough of them. Canvas is lighter than a wooden panel and somewhat more adaptable than a fixed and given wall. The plaster of a fresco is unforgiving when it sets, but oil paint readily allows for revision. So the general pattern of practices changes and adapts, and there is little mystery to it.

Watercolour is not quite the most portable of the colour media, but it is broader and swifter than crayon or coloured pencil, and certainly less cumbersome than pastel. It too can be unforgiving, especially when the first freshness gives way to second thoughts, and successive washes build up to mask, or even destroy, the transparency which is one of its chief qualities. The mistake itself must be accepted and absorbed, for it can hardly be changed adaptably. It is a medium which requires of the artist before all else a circumspect confidence and generosity, if qualified, lack of inhibition. It is then that watercolour declares its true self, taking up close to the artist's hand, direct conversation with his subject as it is laid upon the paper and transformed into marks and blobs and floods of paint. The art of watercolour, in essence, is direct and intel-

lectual, intuitive and infinitely responsive, and it must be allowed to be itself. Artists recognise these qualities for what they are and exploit them. There is nothing uniquely British in this privilege. If we have produced great watercolourists, it is only because we have produced artists good enough, not as mere technicians but as true artists, to put it successfully to their own use. If Turner is the hero of the exhibition, which by virtue of its provenance carries a certain British emphasis, it is right that the strength and excitement it supplies should be in large part international.

Turner is shown, correctly, through his range from early topographical to late romantic. But the single sheet of the Tivoli hill-top and the valley far beyond, with an almost Chinese calligraphic tree in the centre to force the scale, all bathed in a golden light, would be enough for him, and more than enough to show how radical watercolour can be.

But how right it is too that elsewhere in the room, he should sit close to Cézanne, teasing the mass and space of Mont Sainte-Victoire out of so few light strokes of the brush, or a Bonnard interior, good enough to sit, or Nolde's deep red Friesian sky, just within eyeshot of Cézanne's clouds.

Everywhere in the room—by an elegantly lively hang—is the community of artists, but not of nationality. That is the point. Wall by wall and group by group we go, with the medium used now thick, now thin, detailed, rich, and delicate, restrained and bright. A Roualt hangs next to Rowlandson, one dark and heavy, the other wickedly mischievous grotesque; and there are Degas and Cézanne, Géricault, Manet, Renoir, and many others. The exhibition is a direct conversation with his subject as it is laid upon the paper and transformed into marks and blobs and floods of paint. The art of watercolour, in essence, is direct and intel-

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London Symphony Orchestra/Barbican Hall

## Andrew Clements

"Great Russian Masterpieces" is the portmanteau for the latest LSO series at the Barbican, which ended with Sunday night's concert conducted by Yuri Ahronovitch. The description sits comfortably upon Shostakovich's Fifth Symphony, more or less easily on Prokofiev's Second Violin Concerto; but two excerpts from Rimsky-Korsakov's *The Legend of the Invisible City of Kitezh* rather stretched the definition beyond decent limits.

I have not heard the complete opera (the 14th in the Rimsky canon) from which these orchestral interludes were taken, but they manage to elicit a minimum of melodic invention to inordinate lengths. The prelude to Act 1 is an evocation of the limitless wastes of the Motherland of a kind that all 19th-century Russian composers learnt to bring off in their cradles; the second, which introduces the second part of the third act, portrays the Battle of Kozhenets in stock

martial gestures.

Both extracts were smoothly delivered by the London Symphony Orchestra, whose form throughout the evening was impeccable. Ahronovitch's style is unashamedly inspirational, and the LSO has traditionally responded well to such encouragement. In Shostakovich's Fifth its tonal reserves were thoroughly explored; it has been a popular work in London this season, and this must surely have been the loudest account of all. Ahronovitch's tempi were sometimes spectacularly slow—the first-movement expository was drawn out to a lingering close, the final assault of the last movement theme was launched with menacing deliberation.

It did not all cohere; the range of speed in the opening movement was just too wide. But the Largo was sustained with unfailing legato (though never a true pianissimo), and the finale made its discomfiting point with unarguable accuracy.

## Ashkenazy/Festival Hall

## Dominic Gill

Sunday evening's Royal Philharmonic Orchestra concert was conducted by Vladimir Ashkenazy for the first time in his new role as music director (the RPO's principal conductor remains André Previn).

Ashkenazy's baton opened with Ravel's orchestral version of his *Alborada del gracioso*—given brightly enough, and indeed by the RPO very well played. But of all orchestral works, *Alborada* virtually conveys itself; and Ashkenazy's role in the matter was more specifically that of genial provocateur than re-creator and architect.

The evening's centrepiece was Dvorak's violin concerto, which after decades of neglect

has suddenly returned to vogue in the last year or so. Vogue or not, the concerto is not one of Dvorak's most inspired creations—Joseph Joachim was uncommonly strict and ungenerous when it came to great works, and he was not alone in his dislike of it. But for once, in Dvorak's case, he got it right. Performed with irresistible élan, the music has a kind of somnolent Bohemian coyness; but performed, as it was on this occasion, by the Wood's Dulcissimi Distinguished Violinist, Salvatore Accardo, it has only a somnolence to its credit.

After the interval, the RPO's performance of the two Ravel Daphnis et Chloé orchestral suites together in sequence was

very genial, very adequate, with some splendid virtuoso instrumental contributions from individual players to keep it sharp and buoyant. But the direction demonstrated no real or original orchestral insight—or for that matter much intimate understanding of what qualities it is which makes Ravel's Daphnis one of the most luscious and nerve-tugging orchestral scores ever composed. The RPO are a fine orchestra; but it could just be that Ashkenazy (to borrow the transatlantic metaphor used recently in the Independent's Diary to describe the pianist playing of Iv Pogorelich) is just a few vouchers short, as conductor, of a pop-up toaster.

## Capriccio/Teatro della Pergola, Florence

## William Weaver

Richard Strauss's *Capriccio* was until this year virtually unknown in Italy; and for that matter, outside the German language countries, it has never been popular. The reason is clear: as the subtitle of the work declares, it is a "conversation piece," and two hours or more of incomprehensible conversation can be a severe trial even when there is the reward of some of the master's most seductive and subtle music.

But earlier this year the adventurous Teatro Comunale in Bologna staged the work in a translation by Fedele d'Amico, a past master in the art of fitting intelligently and intelligibly Italian words to the music of non-Italians. I was unable to attend those performances, but the reports (including a verbal communication from d'Amico himself) agree that, because of the singers' poor enunciation, a large part of the text could not be understood by the public.

As the second opera presentation in this jubilee 50th season, the Maggio musicale in Florence has recently mounted at the Teatro della Pergola a new production of *Capriccio* in the original German, with Italian titles over the proscenium. To judge by the enthusiasm of the audience at the premiere, this solution was an immense success. Not least among the reasons for this success of course, was the admirable musical execution.

The focal character in the opera and the star of this production was Felicity Lott. Though at the outset the voice

did not seem as lush as some past interpreters of the part, the identification with the beloved Madeleine was so complete that despite some vagaries of the staging the artist was finally convincing, moving, memorable. She was supported by a cast which worked well together, creating a persuasive drawing-room atmosphere.

Alan Titus was an engaging proponent of the playboy count, while Josef Procházka (the composer Flammend) and Walton Grönroos (the poet Olivier) were a lyrical pair of ardent lovers, and Manfred Jungwirth gave just the right amount of irony and authority to the figure of La Roche, the impresario. As the actress Clairon, Marijana Lipovsek displayed a diva's self-confidence without any hamming, and she was vocally impeccable.

Not all the cast was imported, but the Italian singers were full-blooded members of the team. Sergio Bertocci gave Monsieur Tausse, the prompter, a genuine personality. The high, clear voice of Susanna Rigacci was ideal for the Italian soprano, and her tenor, Diego Caricchi, was also absolutely in the part.

If the octet of servants sounded a bit like Italian Gasterbeiter, they were musically exceptional. Except for an errant violin at the beginning, the Florence orchestra played with the best of them, and the fluent direction of Gustav Kuhn. Perhaps the finale could have soared a bit more, but the understated reading was not inappropriate, given Felicity

Lott's straightforward, clean singing.

The production sets by Wolfgang Gernsheim, costumes by Marion Gerretz, staging by Willy Decker—was, on its own terms, beautiful; and the audience clearly admired it. But why was it all in a world of sterile white? White sofas and chairs, white costumes (except for the Italian singers) whitened faces? The uniformity of dress sometimes made the characters hard to distinguish.

More puzzling (and to lovers of this work, irritating) was the final scene, where instead of being alone with her mirror, Madeleine toyed with a silver mask as the other characters in the story gradually crept on stage to assume the rigid poses of porcelain figurines until, her monologue ended, Madeleine struck a similar pose. Very pretty, but not *Capriccio*.

As part of its 50th anniversary celebration and to coincide with the *Capriccio* premiere, the Maggio sponsored a conference on "The Translation of the Song Word." In three days of reports and debate, the question of titles, translation, or original language for opera performance stimulated heated discussion, sometimes irrelevant, sometimes cogent.

In the end, obviously, no single conclusion was reached, but a number of interesting points were raised; and as the Florence Sovrintendente Giorgio Videsio said, quoting Hegel: "The important thing is not to find solutions, but to pose problems."

A Streetcar Named Desire

## Martin Hoyle

Ian Albery's production of opera has been praised by his colleagues on these pages. With Schiller (*Mary Stuart*) for Greenwich, and Britten (*Billy Budd*) for ENO in view, he evidently alternates work on both lyric and "straight" stages. In his new production of Tennessee Williams's *Streetcar* he almost combines the two in an intriguing, consistent and intelligent experiment that nevertheless obscures more than it clarifies.

A traverse crimson curtain, too vast to be naturalistic, dissects the main acting area of the Sheffield Crucible, separating the Kowalski's cluttered bedroom from the cheap kitchen furniture of the living room. More strikingly, in exaggerated perspective path (red carpet?) leads up to a door set in a distant cityscape. Tilting theatre boxes of gilt and plush loom over this upstage area, the unseen audience (recording itself? Imaginary lovers or enemies?) that we all play to at some unconscious level. Antony McDonald's sets keep an expressionistic world of fraught and threatening theatricality always in the background. From that world, through the door and down the sloping path, to the rough bridge over a chasm that perhaps marks reality from dreams, comes Blanche, to the strains of *La Traviata*.

The production responds to the poetic in Blanche's soul—rightly not treated as earthy realism but distilled and stylised, so that even the wind-fire escape to Eunice's apartment seems elegantly like an Emmet structure.

Already Blanche is not entirely with us. "My Rosenkavalier!" she cries when Litch calls; and "Di rigori armato" soars through the auditorium while a silver figure rises in mists from the chasm. We frequently hear Garbo's Camille, Stanley's boisterous outbursts are accompanied by the sound of thunderous trains roaring by and raucous music as Blanche freezes into a petrified pose of writhing agony, head clutched in hands, she meets sinister dark-clothed figures—in that upstage dream territory—figures that later appear as the doctor and matron who take her

away. Fantasy has inevitably taken over, so that when she screams "fire!" to warn Stanley off, flames and smoke appear to a loud report.

All of which is fascinating, and yet... It almost diminishes Blanche to depict her as corroded by kitsch as it might be. In a way she and Stanley, the brutal brother-in-law who resents and destroys her, are as much complementaries as clashing. Like John and Alma in *Summer and Smoke* they show the anguished, unwitting cross-purposes of unchained carnality and equally rudderless romanticism. As Stanley says, advancing to the climactic act of rape, they have had this date from the beginning.

One has all the more reservations about Blanche, seen as the Lydia Languish of Dixie, as the part is so strongly played here. Angela Punch McGregor, best known for film appearances in her native Australia, presents a better loser but not a born victim. This Blanche has gone the distance, fighting all the way. Vocally impressive (occasional indistinctness might be the production's fault), her tough streak makes her initial attraction with Stanley quite robust, her assertion that she understands him better than his wife perfectly credible.

Daniel Kash is a compact Stanley, good at whooping through the horseplay with the guys (and constant reassuring caresses among the men imply a strictly old-fashioned sexual lines), but ultimately better at needing, mocking and mimicking (except when he faintly recalls Rowan Atkinson) than expressing animal vitality.

The rape is done on-stage, and a young man, bare-chested in a sequined black evening dress, makes her initial attraction with Stanley quite robust, her assertion that she understands him better than his wife perfectly credible.

## Dance in Paris

## David Vaughan

American choreographers are much in evidence in Paris just now, what with Merce Cunningham holding forth at the Théâtre de la Ville and an electric mixed bill at the Paris Opéra.

The five choreographers included in this programme have little in common except their nationality. It would seem to be premature to show the work of Daniel Ezralow and David La Touche on the stage of a great European opera house. Ezralow's duet *Soon* looked like a déclassé night-club act, with Isabelle Guérin in lacy black, all-over tights and Patrick Dupond expiring at the end, bare-chested, in a shower of glitter dust. Veloz and Yolanda used to be better. Parsons's *The Envelope*, though ingenious enough, was a joke that soon wore thin.

An earlier generation was represented by Alwin Nikolais, who created *Skylark* (scored choreography, set, costumes, lights) at the Opéra some time ago. Four solos were excerpted under the title *Ar-en-ciel*. Michael Denard, Jean Guilleux, Jean-Yves Lormeau, and Patrick Dupond looked like the other, in the spasmodic isolations of this tired novelty—a twitch here, a wiggle there.

The programme began and ended with world premieres by young choreographers who have already made a name for themselves in Europe. Karole Armitage can claim to have danced for both Balanchine and Cunningham, and has choreographed previously for the Opéra's experimental group. At present she uses an idiom derived from the distor-

tions and deformations invented by Balanchine for his own more extreme experiments—thrusting hips, turned-in knees, arms akimbo.

Like many others, Armitage has appropriated the manner rather than the spirit of this idiom. She can call upon better dancers in Paris than in her own recent, ill-prepared New York season, but even Elizabeth Piatel and Jean Guilleux could not make sense of the stop-motion poses and disjointed steps, punctuated by insolent looks at the audience. The baller, called *Les Anges Terres*, to music by Charles Mingus, was designed by Armitage's frequent collaborator David Salle, who has painted two backcloths, one a still-life of fish, the other of a loaf of bread; a front-cloth depicting an ear and an unidentifiable object; and two rows of cut-out skeletons that descend from the flies.

William Forsythe has worked chiefly in Germany. His ballets can be categorised as neo-expressionist, the kind in which women in Thirties black dresses, little hat, and high heels portray various degrees of angst and neurosis. In the middle, somewhat isolated, however, is a more or less pure dance work, to a repetitive electronic score by Tom Willems, that shows Forsythe to be capable of making phrases with a sustained dance energy. Superbly danced by Guérin, Sylvie Guillem, and Laurent Hilaire, the work finally suffers from a lack of overall structure and becomes the sort of thing that, so to speak, goes in one eye and out the other.

## Saleroom/Antony Thornecroft

## Bargains in ceramics

British ceramics remains one of the few antique markets where the man in the street can still hope to build up a reasonable collection with modest resources. Prices have modestly risen, but they have not hit English furniture and silver, partly because the owners of fine pieces are reluctant to sell them, well aware that their equal is unlikely to come on to the market.

Christie's sale yesterday suggested that demand was increasing, with a morning total of £202,000 and only 5 per cent unsold. The top price was the £10,450 paid for a Staffordshire salt-glaze baluster chocolate pot and cover, which carried a top estimate of £2,500.

The exceptional price is partly accounted for by its provenance—it comes from the collection of Mr Geoffrey Godden, the guru of ceramics connoisseurs, who featured it in his books and used it in his lectures. Despite the fact that the button on the top had been re-stuck, this pretty pot, decorated with a rural scene including a church and made around 1755,

was pretty enough to encourage competitive bidding. Toby Jugs were also in demand. A Staffordshire "Thin Man" of the Ralph Wood type and made around 1780, went for £8,050 as against a £1,500 top estimate. A similar Toby, also tied to Ralph Wood, this time dated to 1775, was slightly closer to its estimate at £5,500. The early English ceramics are popular in the US, which perhaps accounts for the \$4,950 paid by the dealer Horne for a Staffordshire silhouette press moulded dish, by I.C., dated to around 1680.

One of the most important memorabilia attached to Alice in Wonderland arrives at Christie's for sale on June 24. Bound with an 1872 first edition of "through the Looking Glass" come three preliminary drawings by John Tenniel, together with a series of 35 working sketches on tracing paper and two signed proofs. Christie's is at something of a loss to estimate the value of such a rare haul but thinks that bids in the region of £150,000 might be successful.

## Arts Guide

## Opera and Ballet

## LONDON

Royal Opera, Covent Garden: Massenet's *Manon*, an opera not given in this theatre for more than 20 years, returns in a new production by Rudolf Noë, conducted by Jeffrey Tate. Julia Migenes makes her British debut in the title role, and the cast also includes Neil Shicoff, J. Patrick Barber and Robert Lloyd. Last performance of the running, highly colourful Turandot, with Gwyneth Jones and Franco Bonisolli, and of the Werther revival conducted by Michael Schonwandt, with Francisco Araiza and Agnes Baltsa. (2401086).

English National Opera, Coliseum: David, Pavarotti's rubish-dump

version of Carmen, one of the opera's tender longings in modern times, returns with a new cast—Jean Rigby and Arthur Davies playing Carmen and José for the first time in this theatre. Further performance of the new Pavarotti production of Shostakovich's *Lady Macbeth of Minsk*, with Josephine Barrow, and of the Gerald Scarle-designed *Orpheus* in the Underworld, an elaborate staging somewhat short on Offenbachian wit and satire. (3381011).

PARIS  
Merce Cunningham Dance Company followed by Hamburg Opera's ballet, with John Neumeier. America's most European neo-classical choreographer Theatre de la Ville (42712277).

Der Fliegende Holländer followed by American choreographers' address—Karole Armitage, Alvin Nikolais, David Parsons, Daniel Ezralow, Willem Forsythe. Paris Opéra (42685022).

WEST GERMANY  
Berlin, Deutsche Oper: Kier Opera with Boris Godunov, sung in Russian. Boris Blacher's *Freischütz* returns with Lisa Otto, Barbara Vogel, Helga Wiewerska and Victor von Halem.

Frankfurt Opera: Last performance of *Orpheus in the Underworld*, in which Christian Feggen and Valentin Jer sing the main parts. Festival has a particularly strong cast with Sabine Baus, Hermann Winkler, Gerolf Schoder and Günter Reich. Dido and Aeneas has fine interpretations

by Glensy Lino, Alain Woods, Susan Roberts and Valentin Jer. Cologne, Opera: The week features the premiere of the edition *Fliegende Holländer*, conducted by Gerd Albrecht in Harry Kupfer's production with Roland Hermann, Eva Tannay, Janice Hall and Randall Outland, Zar and Zimmermann bring Josef Procházka, Martin Funke, Marianne Hirs and Ludwig Baumann together.

Stuttgart, Württembergisches Staatstheater: Tristan and Isolde features Deborah Polak, Waltraut Meier, Manfred Jung, Matthias Hille.

ITALY  
Turin: Teatro Regio, Barber of Seville directed by Michael Hampe, with scenery by Ezio Frigerio and costumes by Mauro Pagnan. Bruno Campanella conducted a cast which includes Luciano Serra and Enzo Dara. (5481000).

Bologna: Teatro Comunale: Puccini's *La Rondine* in Fanchini Sammaritani's production conducted by Thomas Fulton, with Fiamma Izzo d'Amico, William Matteucci, Paolo Coni and Bruno Beccaria. On Tues. (525998).

Palermo: Politeama Garibaldi: La Forza del Destino conducted by Angelo Campanella and directed by Carlo Metelli, with scenery and costumes by Nicola Benici. The cast includes Adriana Morelli, Maria Luisa Nave, Alessandro Cassia and Francesco Ellero d'Artena. (584334).

Genova: Teatro Margherita: A new production of *Rigoletto* by the Compagnia del Nuovo del Carlo Felice, directed by Luciano Alberto, with scenery and costumes by Pasquale Grassi. Daniel Oren conducted, and Leo Nucci sings the title role. Carla Fracci Ballet company in a dance version of Chekhov's *Three Sisters* by George Jancu to music by Tchaikovsky. Carla Fracci leads a cast which includes Cecilia Donella, Aurora Benelli, Checco Jancu and James Urban. (589320).

burgul 87-89). Spinosa Variations by Tom Swire and Denara (Wed, Thurs). (331211).

The Netherlands Opera touring company with the Barber of Seville directed and designed by David Fo, the Netherlands Philharmonic conducted by Stephen Barlow, Kathryn Cowdell (Rosina), Yoshitsugu Yamaji (Almaviva), and David Mella (Figaro). The In Nijmegen, Schouwburg (221100).

SPAIN  
Barcelona: Massenet's *Werther* with Renata Scotti, Alfredo Kraus, Enric Serra, Montserrat Alavedra and Alvaro Echevarria in the leading roles. Gran Teatre del Liceu, San Carlo L (Tue).

NEW YORK  
American Ballet Theatre (Metropolitan Opera House): Cynthia Gregory, Marianna Tcherkassky and artistic director Mikhail Baryshnikov return for the spring season of mixed programmes, including company members of Soviet choreographers by Paul Taylor to Elgar and Enough Said, Clark Tippet's choreography to George Perle's music. Lincoln Center Ends June 13. (3626000).

NEW YORK City Ballet (New York State Theatre): More than 40 works by Balanchine, Robbins, Peter Martins and other choreographers will be part of the two-month long 88th season, including two new works by Martins set to music by Handel and Michael Torke. Ends June 28. Lincoln Center (8765570).

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## FINANCIAL TIMES

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Tuesday June 2 1987

## The agenda for Venice

NEXT WEEK'S economic summit in Venice differs from recent international meetings of finance ministers in at least one important respect. It will be much more difficult than hitherto to blame Japan for the world's many economic tensions and imbalances. The 76,000bn package of stimulatory measures announced in Tokyo last week is as generous as could sensibly have been expected given the domestic political constraints facing Mr Nakasone, and while Japan has on previous occasions failed to implement such packages, this time the assurances of officials have a more convincing ring. Taken in tandem with the promise of additional untied finance for developing countries, it suggests that Japan at last is taking its international responsibilities seriously.

The spotlight in Venice ought therefore to shift to another part of the world where growth is low, inflation negligible, the current account in large surplus and government finances rock solid: West Germany. The financial community has greeted the Japanese proposals enthusiastically. Nobody has yet suggested that the tax cuts and additional public spending (mainly on infrastructure) will do anything but good. There has been no hint that carefully planned relations by the public sector will necessarily be ineffective or that a spontaneous revival led by private sector entrepreneurs. Support around the world for Japan's initiative illustrates the extent to which fiscal policy has been rehabilitated as an instrument of economic management.

## Unpopular move

The question that Mr Gerhard Stoltenberg, the West German finance minister, will have to answer in Venice is: why are the policies that are desirable in one country not also desirable in West Germany? Even before Tokyo's conversion to more stimulatory measures, West Germany's growth prospects were much poorer than Japan's and its unemployment much higher. The IMF has calculated that if policies in Bonn do not change, real domestic demand in West Germany next year will grow more slowly than in the US, a debtor trying to curb its deficit.

A package of stimulatory

measures, on the scale of that announced in Tokyo, would not just revitalise the West German economy. It would reinvigorate the whole EC economy, a trading bloc larger than either Japan or the US. However, given Mr Stoltenberg's past policy pronouncements and the difficulty of convincing West German state governments of the need for reform, such a package is most unlikely to materialise unless strong pressure is brought to bear in Venice. Mr James Baker, the US Treasury Secretary, must therefore prepare to make himself highly unpopular in Bonn.

The US-West German battle in Venice can also be expected at a deeper philosophical level. At the OECD ministerial meeting in Paris last month, Mr Baker made it clear that he expected the Group of Seven countries to make significant progress in devising a mechanism for implementing the economic co-operation and co-ordination that everybody claims to support. The US would like the industrial countries to set informal targets for a range of "objective economic indicators" (things such as real GNP growth, current account balances and budget deficits) and agree to hold consultations when the variables diverge from the mutually agreed targets, to see what remedial action might be required.

West Germany, supported by the UK, is resisting attempts to create a formal structure of rules and obligations for the management of the world economy. Yet opposition to arrangements that would make effective co-operation more practicable seems largely misplaced. The objectives of the system are not intended in any sense as a substitute for greater reliance on free markets, which attract Mr Baker's whole-hearted support. It is merely a recognition that free enterprise can flourish on a global scale only if individual countries agree to pursue consistent macroeconomic policies. This seems a pretty uncontroversial proposition given the bitter legacy today, in terms of imbalances, currency instability and a general sense of economic policy inconsistency, in the early 1980s. The hope must be that, once in Venice, the G7 countries will put narrow considerations of national sovereignty behind them and work together in what Mr Baker has dubbed a "partnership for growth."

## Philip Bassett says the election campaign may be good news for British industrial relations

IN THEIR first election broadcast, the Conservatives played hard the union card. Accompanied by Holst and newscast clips of the Battle of Britain, a central plank of the Tories' first TV pitch at the electorate focused on the 1978-79 winter of discontent: striking lorry drivers, striking dustmen, striking gravediggers.

In 1979 public misery over pay strikes was enough to sweep Mrs Thatcher to power. But the reaction to the broadcast from the Conservatives' opponents indicates the importance, or rather the lack of it — that trade union power will play in the 1987 election. The critics were angered by what they saw as the misappropriation of British notions of patriotism rather than by the use of the theme of union power.

"It isn't going to be an important issue," says Mr John Edmonds, general secretary of the GMBU general union. Mr Norman Willis, the TUC general secretary, agrees: "We have been a target in past elections," he says. "I don't think that the trade unions are going to be a big factor in this one."

Probably to Mr Willis's surprise, all the principal parties agree broadly with him. "I don't think there is a strong case for further reforms now," says Mr Malcolm Bruce, the Alliance's employment spokesman. "I don't think it's a vote winner."

Possibly for the same reason, Labour is more circumspect, but is certainly a long way from actively making unions an issue in its campaign. "I believe the Conservatives' anti-union legislation has been counter-productive," says Mr John Prescott, employment spokesman for Labour. But he much prefers to stress Labour's policies for creating jobs and for training.

"It ought to be an issue," says Mr Kenneth Clarke, Employment Minister, a shade wistfully. "But I accept there is a difficulty in raising it."

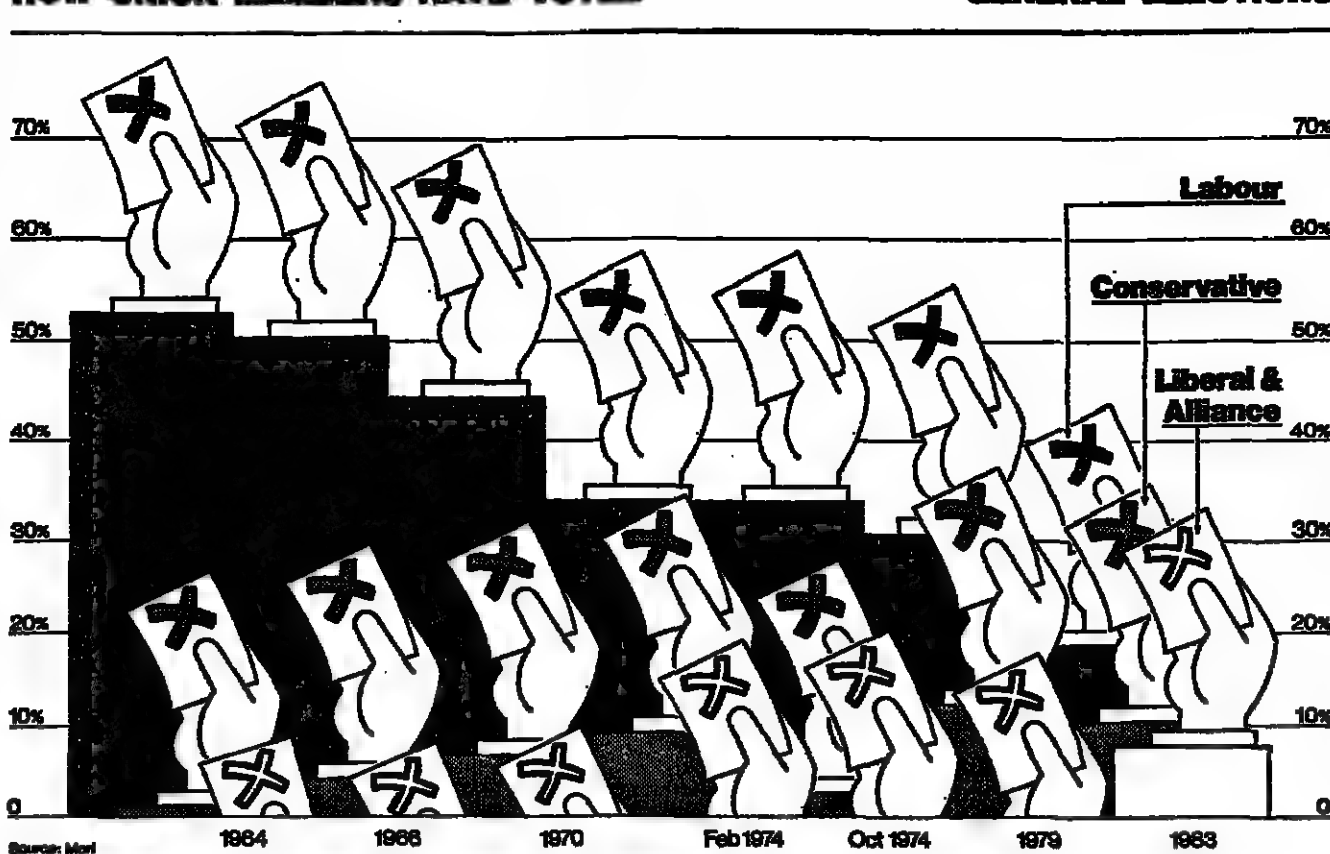
The difficulty for each party is different, but the effect is the same. For the Conservatives, the problem is to raise the winter of discontent or the 1984-85 miners' strike as a potent symbol of the need for rolling back the power of the unions to the point where the likelihood of their mounting further such confrontations looks remote.

The Alliance feels the Conservatives, with their union reform, have stolen many of its clothes, especially on balloting. It wants to stress that, but to maintain what distance it can from the Tories on the issue. It also wants to make sure that it is not over-committing to the unions, which it sees as a key part of the two-party struggle.

Labour wants the unions' money and, as its smooth-running campaign is in part about their organising ability, but—fear of being tarred by the brush of union unpopularity — not much else. One union general secretary tells of hearing a member of Mr Kinnock's advisory team dismissing the unions as "just boring."

That Britain's unions, once seen as emblematic of all the UK's ills, have achieved this electoral irrelevance (or rather, had it thrust upon them) is tribute to the extraordinary impact of the Thatcher years: an unemployment, technological

## HOW UNION MEMBERS HAVE VOTED



## GENERAL ELECTIONS

## The spectre refuses to rise again

change, shifts in industrial sectors and the Conservatives' three main and other minor pieces of employment legislation have all played their part. Industrial relations are more stable, more consensual now (well beyond the crude point that strikes are at their lowest for 50 years). Unions, though outraged at unemployment and chagrined at their loss of mem-

bers, small, the charge in relation to the trade unions against the Tories in this election is: have they run out of steam?

Mr Clarke denies it, claiming the charge is in fact rooted in the party's success. Because so much has been achieved, because so much has changed, what is now proposed seems less radical. He feels that

the strike-free, single-union, single-status agreements now being signed by EEFPU, the electricians' union and others. Nevertheless he is still irritated at the slowness of change.

For him, the Conservatives' manifesto points on unions are just an attempt to make the

Minister says too of the EEFPU's model of modern trade unionism that "it is not going at the pace I would like."

The fact that the pace has slowed may mean that the major changes in practice and in attitudes have already taken place.

What the Conservatives are proposing now is a monumental irrelevance," says Mr Jimmy

## THE PARTIES' PROPOSALS FOR THE UNIONS

● CONSERVATIVE: Union members to be empowered to stop unions calling strikes without secret ballot; unions to be prevented from disciplining non-strikers; five-yearly elections for leadership; postal ballots in union elections; further limits on closed shop; new safeguards on union funds; new commissioner for trade union affairs.

● LABOUR: Unions and industry in Joint National Economic Assessment; Conservative legislation to be replaced with statutory framework including general principles for union rulebooks on strike ballots and secret ballots for elections; independent tribunals on members' complaints; increased individual employment rights; improve protection against unfair dismissal; unions to be able to organise effective industrial action.

● ALLIANCE: Unions to be made accountable and democratic; rights to recognition and to strike to be balanced by acceptance of wider responsibilities; disputes to be referred to independent arbitration before industrial action; strike-free agreements to be encouraged especially in essential services; union rights at GCHQ (also promised by Labour).



## Australian test for corporatism

EXACTLY A month after Britain votes on Mrs Thatcher's ambitions for a third Conservative parliamentary term, Australians will go through the same exercise to decide whether Mr Bob Hawke's Labor Government should have a third term.

Although Mrs Thatcher's two terms have lasted eight years and Mr Hawke's barely half that, both have given the highest priority to trying to rescue embattled economies and to shifting the attitudes of their very different populations to create an unfettered environment for solid economic growth.

How far each has succeeded remains a matter of controversial debate. Their governments could hardly be more different: Mr Hawke is a life-long socialist whose career as a trade union official culminated in the presidency of the powerful Australian Council of Trade Unions. He entered parliament only in 1980 and within three years had snapped up the leadership and won a general election to become Prime Minister.

Mrs Thatcher, a middle class professional who switched careers early in life, entered parliament in 1959 and spent 16 years plodding the traditional route to the Conservative Party leadership in 1979 and then waited another four years to become Britain's first woman prime minister.

But both decided to give the status quo a radical shake up. Mrs Thatcher vowed to reduce government controls, to give the market a free rein and so crucially, to legislate for the dilution of trade union powers. Here the paths diverge. The Hawke Government also freed the financial markets, courageously floated the Australian dollar, and took a tough and austere fiscal line when the sustained collapse in world commodity prices made it plain that the country was living far beyond its means.

But Mr Hawke's Government, rather than dismantling the trade unions, tried to get them to join the government forces in the battle to turn the economy round. There is no doubt that this policy had considerable success in the beginning: the Pay Accord pegged central wage awards below the inflation level which began to fall

together with living standards.

In the early accord Mr Hawke and his team basked in the international limelight as they were feted as an administration which had pulled Labour unions on side with little acrimony. Labour stoppages declined and Mr Hawke was hailed internationally as a new-mould Labor politician, in the style of the Swedish and West German social democrats, both of which have a tradition of labour concordats.

This image is not wearing well. The glitter has gone, although Mr Hawke's personal popularity remains high and his electoral chances are greatly boosted by the inept display of the opposition parties.

## Worst habits

But key structural problems within the labour market remain a large obstacle to Australia's economic recovery on which depends its competitive place among its main trading partners. The labour market remains rigid and firmly in the hands of a plethora of competing and aggressive unions—one of the worst inheritances of the British tradition and completely at odds with the Swedish and West German structures to which Australia claims to aspire.

Australia has made no effort towards a free and mobile labour market, a goal which the Thatcher Government in Britain has sought to achieve but so far with mixed success. The recent record gives the impression that the unions may be successfully reverting to some of their worst old habits. Worse, Mr Hawke's Government appears to be acquiescent: the Industrial Relations Bill was withdrawn within weeks of being introduced last month, but only in the face of unprecedented opposition from employers against the proposal to withdraw access to common law to secure injunctions against industrial action.

Mr Hawke has yet to demonstrate that the corporatist approach, at least in the Australian context, can deal satisfactorily with the structural rigidities which still hamper the economy.

## Nicolson joins northern Telecom

Sir David Nicolson, chairman of the privatised shipbuilding group VSEL Consortium, and bore that of BTR and Rothmans International, is returning to his family roots with his latest appointment.

He has joined the main board of Northern Telecom, the Canadian telecommunications equipment manufacturer, which last year had sales of \$4.38bn, nearly all in North America.

Nicolson's appointment is the latest example of the trend for major companies to seek an international presence in their board rooms.

The first Britisher to sit on Northern Telecom's board, he is, in a sense, going home.

His father was a Canadian engineer who settled in Britain. And in the 1960s Nicolson strengthened his Canadian links by serving on the British National Export Committee for Canada.

He reckons this association with Canada was one reason why Northern wanted him in its inner councils.

Another was Northern's desire to do more business in Europe, a point doubly reinforced by the company holding its first-ever board meeting outside North America in London last week.

## Fruitful walk

Lord Bernstein, aged 88, who as Sidney Bernstein was a pioneer of British commercial television with Granada (he is president of the company) was last night the recipient of an unusual tribute to his long and distinguished career.

The provincial government of the Spanish state of Granada held a ceremony in London to present him with a memento in appreciation of the beneficial effects his worldwide publicity for the name has had upon the Granada tourist industry, and the economy of the city and the state.

Appropriately they gave him a silver pomegranate.

## Men and Matters

It is interesting how one thing leads to another. For it has to be said that neither Sidney nor his brother Cecil were out to publicise the province when they chose the name Granada in 1980 for the family cinema business founded by their father.

Sidney had been on a walking holiday in Spain a year or two previously... and somehow couldn't get the resonant name out of his mind.

## Hot Pepper

"Change comes slowly. Let's pray we have better news to report 20 years from today," said Paul McCartney at the Abbey Road studios, London, to mark the 20th anniversary of the Beatles' release of Sergeant Pepper's Lonely Hearts Club Band.

For the world's record companies, which were in the doldrums in the early 1980s, more of the same—in their ability to re-release old favourites like Sergeant Pepper on the new compact disc format—is just what the doctor ordered.

EMI Music is shipping 1m Sergeant Pepper CDs to music shops around the world in anticipation of the first burst of demand for the CD version released yesterday, says Tony Wadsworth, the manager in charge of the push. He reckons Sergeant Pepper will out-sell the seven other Beatles CDs released this year.

Response has been particularly good in the US. Wadsworth says, where the new format has persuaded fans in their 30s and 40s, now shorn of their long hair and holding down good jobs, to re-visit the music of their youth.

The marketing hype also attracts a new generation to try the sounds of the 1960s. LP and cassette sales of Beatles music have been running at three



"...and another thing—we won't allow Moscow-bound night aircraft to use Britain as a base."

times their normal level since the CD release.

And, of course, milking old catalogues, which EMI has been doing for the past two years, comes cheap. "You don't have the initial high marketing costs," Wadsworth purrs contentedly.

## Off the rocks

Albin Chalandon, the French justice minister, and a former chairman of the French Eif-Equitaine oil group, has emerged as one of the principal victims of the collapse of the venerable Parisian jeweller Chaumet.

The jeweller is expected to seek protection from his creditors under French bankruptcy legislation this week after suffering from reported losses and debts totalling about Fr 1.5bn after what appears to have been a strong of unfortunate and costly operations in the

highly speculative world of precious stones.

Chalandon has openly acknowledged that he had entrusted a substantial amount of precious stones and jewels belonging to his wife, Princess Ségolène, with Chaumet. The jeweller had agreed to sell the gems gradually and pay Chalandon in monthly instalments.

But those large payments stopped at the end of last year as Chaumet's financial woes increased.

The irony of the situation is that each time Chalandon goes to his office the problems of Chaumet stare him in the face. Situated near the Place Vendôme in Paris directly opposite the justice ministry where Chalandon currently sits.

But a solution seems to be in sight for Chaumet's problems. Three groups have stepped up to take over the famous jeweller. The competing groups include the Saudi businessman Rafik Al Hariri, Tiffany's of the US, and the French jeweller Boucheron.

## Another name

Ron Todd, leader of the transport workers' union, who was last night lecturing on the role of the media, may count this as a piece of media bias.

But his name was taken in vain yesterday by his opposite number in the electricians' union, Eric Hammond, at that union's Blackpool conference.

Relations between the TGWU and the EEFPU have not always been of the best. There was a famous exchange at a Labour party conference when Ron called Eric a "Jackal," and Eric called Ron a "Dinosaur."

Dealing with some current TUC little local difficulty while speaking yesterday Hammond told his conference that the TUC meeting had been attended, not by Mr Todd, but by "Mr Cload."

Freudian slip or not, he quickly apologised but acknowledged ruefully that "He would never get over that one."

Observer

## FER DE LANCE



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When Mr. Rashid Karami met his violent end yesterday, he was the reluctant Prime Minister of a Lebanese Government which has all but ceased to function.

The so-called "national unity" cabinet had failed to hold a full meeting in months. Mr. Karami, a Sunni Muslim who had been Prime Minister nine times in some 30 years, had not been in speaking terms with Mr. Amin Gemayel, its Christian President, since early 1986. To cap it all, the Prime Minister submitted his resignation at the beginning of last month as a result of the latest of many Lebanese political assassinations and of constant carping criticism of him by Christian leaders (the resignation was rejected for lack of an alternative Prime Minister).

Yet Mr. Karami was an important figure in several ways. As a leading Sunni in a country whose Muslim population has increasingly come to be dominated by Shiite Muslims, his latter-day impotence was symbolic of an old order in Lebanon which has been apparently destroyed for good. He was the principal Muslim ally within the country of Syria, which has been struggling for three months to impose its own form of order on the capital and has now been left without a prominent political interlocutor there.

His death in what is by now a bloody and chaotic fashion in Beirut may be one of those events which tip an already anarchic situation back into complete chaos. If there ever had been any chance that the Lebanon's warring factions might be reconciled, under Syrian auspices in the past few months, it was probably blown up along with Mr. Karami.

The consequences for the mutually hostile states to the south and west, Israel and Syria, may be extremely dangerous. Both have tried to bring events in Lebanon under their control at various times, whether with a view to preventing the country's volatile faction-fighting from causing a wider conflagration or to establishing a strategic advantage; both have suffered violent humiliations there.

For their part, Western countries—each with its own share of such disasters—are likely to cling more tightly to the view, articulated most vividly earlier this year by Mr. George Shultz, the US Secretary of State, that Beirut suffers from a metaphorical plague and needs to be quarantined.

The most immediate losers from Mr. Karami's death, though, are undoubtedly Lebanon's 700,000 Sunni Muslims who are arguably now

## Lebanon after Mr Karami



Mr Karami (right) with President Gemayel.

## From calamity to calamity

By Andrew Gowers, Middle East Editor

In a weaker position than at any time since the collapse in 1971 of the Ottoman empire, their great protector, the Sunnis were once the leading Muslim community with a major stake in the delicate balance between mutually hostile confessional groups. They served as the main link between the Maronite Christians and the Arab world, and were valued as such by many Maronite intellectuals and merchants.

By convention dating back to the French mandate in the 1920s, and established in an unwritten "National Covenant" between the two political elites in 1943, the Lebanese prime minister has been a Sunni while the President is a Christian. Now that the Government has become reduced to little more than a chimera, that convention seems pretty worthless. For the fact is that the harsh realities of power politics in Lebanon overlook such constitutional niceties long ago. In a nation which looks increasingly centralised, the Sunnis lack a viable canton beyond the

coastal cities of Tripoli, Beirut and Sidon. Karami's power base, for example, was among the wealthy families of Tripoli; in a country ruled above all else by factional firepower, they do not possess a powerful militia in a Government which depended at its inception in April 1984 on the maintenance of a dialogue between Christians and Sunnis, they have abandoned any working relationship with the Christians.

In the meantime, the balance of Muslim power has been shifting inexorably towards the more militant Shia population. The Shias historically inhabited remoter parts of Lebanon such as the South and northern Bekaa valley; in the mid-nineteenth century, for example, hardly any of them resided in Beirut. As a result, they have also tended to be excluded from power, and economically underprivileged. Unlike the Maronites with their traditional links with France, the Druze with their British patrons, and the Sunnis with their Ottoman sponsors, the Shias were not

objects of foreign patronage.

All this has been changing dramatically in recent decades as the Shias have migrated into the cities and become increasingly politicised. In the 1980s, principally under the influence of an Iranian-born cleric named Imam Musa al-Sadr, the radical trend was boosted in the 1970s by the arrival of large numbers of Palestinian fighters.

But the event which, above all, served to shatter the old order was Israel's invasion of Lebanon, which began exactly five years ago this week. As a result of the war in the south, tens of thousands of Shias fled to Beirut and settled in the sprawling shanty-towns now unanimously referred to as the city's southern suburbs. They began to be more insistent in their demands for a bigger slice of the political action; they have also proved fertile territory for the radical Islamic forces of the Iranian revolution.

Mr Karami's death, and the longer-term decline of Sunni influence, has thus left a vacuum in Muslim politics which is being filled by forces at once more radical and more difficult to deal with—either for Christian interlocutors within the country or for external powers such as Syria. The Shia community is itself split into factions, including the pro-Syrian Amal militia led by Nabih Berri and the proliferation of pro-Iranian groups broadly centred on the Hizbollah, or Party of God—and lacks any coherent leadership.

On the Christian side, extremist voices, such as the right-wing Lebanese Forces militia led by Mr Samir Geagea, are also gaining in strength at the expense of people, like President Gemayel, who believe at least in trying to maintain the fiction of a unitary Lebanese state.

Amid the constitutional confusion, presidential elections are supposed to be held when Mr Gemayel's term ends next April. But it is far from clear how he or anyone else will prevent these from being overtaken by another desperate state of bloodletting in Beirut.

The view from Damascus must be particularly worrying. President Hafez Assad of Syria sent about 7,000 troops into Beirut in February to restore order after a particularly savage bout of fighting between Sunnis, Druze, Communists and Shias. If the situation does deteriorate into all-out war again, he faces the prospect of a long and potentially exhausting military engagement. There is a peculiar Lebanese irony in the fact that the man who invited Syrian troops in was none other than Rashid Karami.

## A view from Taiwan

# Uncle Sam's double talk

By Peter Montagnon



	1980	1981	1982	1983	1984	1985	1986
Exports	6.76	8.16	8.78	11.33	14.87	14.77	18.99
Imports	4.57	4.77	4.56	4.85	5.04	4.75	5.42
Surplus	2.09	3.40	4.20	6.89	9.83	10.02	13.56

Source: Ministry of Economic Affairs, Taipei.

Figure in US\$bn

MR JOHN HAU, a leading Taiwanese footwear executive, recently decided to start importing high-grade shoes from the US to satisfy what he saw as growing demand in the domestic market for foreign luxury goods.

Four attempts to place an order at the headquarters of the Florida shoe concern, in the US, produced nothing more than a peremptory letter referring him to the company's regional distributor even further away in Australia. So he says he gave up the idea in disgust.

His experience is just one example of the bewilderment facing Taiwan as, like other Asian developing countries, it battles to reduce its trade surplus with the US. Though Taiwan is now moving rapidly to open its markets to foreign goods, businessmen and officials in Taipei say there is still no sign of an improvement in their country's trading pattern that would shield it from protectionist pressures in Washington.

More than any other country in the region Taiwan is vulnerable to US pressure on trade. Bowed by the weakness of the dollar against other currencies, especially against the yen, its exports have been rising rapidly. Last year its \$13.5bn (\$13.5bn) surplus with the US was the second largest in Asia, after that of Japan. This year, according to Mr Edward Chien, a senior finance ministry official, it is likely to grow to \$18bn. In the space of a year its foreign exchange reserves have more than doubled to \$86bn, worth over two full years of imports.

Taiwan's problem is that it is heavily dependent on the US for its economic growth. Last year its total exports of \$39.8bn made up almost 60 per cent of its gross national product and nearly half of them went to the US. It can ill afford a solution to its trade imbalance which involves a draconian cut in exports. Instead it has been trying to promote imports through special buying schemes to the US, as well as tariff cuts. Just before the latest round of bilateral trade talks with the US in April, the Taiwanese Government announced sweeping tariff cuts of up to 50 per cent on 860 separate items, including some in sensitive

sectors like footwear, electronics and textiles. More are to follow, but still the surplus will not go away. The question is, why not? Is it because, as Mr Hau believes, US business is simply not interested in exporting? Or because market-opening in Taiwan has not gone far enough? Or because what Taiwan really needs is a radical change in economic policy that would shift the emphasis away from exports and on to domestic consumption?

The short answer to all these questions is probably a qualified "yes." Seen from Taipei, however, the more detailed arguments reveal some general truths about the US trade problem and the difficult policy choices it has brought to Taiwan, and to neighbouring countries like South Korea with similar export surpluses.

Taiwan's hope has been that by winding down the protection afforded to its own industry, it will be able to escape protectionist attack from the US, much as Hong Kong has remained relatively unscathed because of its lack of tariffs and commitment to free trade. The size of its surplus means, however, that it is unlikely to get away so easily. "They've begun to take steps that the US regards as meaningful, but this can't be the end of the process," says Mr Herbert Parker, a Taipei-based lawyer who specialises in trade. Apart from still further tariff cuts, he says, he expects the US to continue to apply pressure on Taiwan to open up its services

sector. On Washington's shopping list is the right for US transportation companies to set up operations within Taiwan, the right for US banks to issue credit cards there and so-called "national treatment" for Taipei branches of US banks. Mr Parker believes that a well-publicised package, incorporating more tariff cuts and agreement to some or all of these requests, could do much to sweep aside the kind of political pressure that led to the passage through the House of Representatives last month of the Gopher amendment. This calls on the President to take action against countries which run a persistent surplus in their trade with the US.

Even so, however, the assumption is that the surplus with the US would remain embarrassingly large, and Mr K. C. Lee, research director at the Government's Economic Planning Council, believes that a large part of the problem is structural. On the other side of the balance sheet, Taiwanese officials express a fear, which is incidentally shared by their counterparts in Seoul, that market opening will simply lead to a surge of imports from Japan. Although Taiwan is expected to favour the US when awarding contracts for 14 major infrastructure projects, worth about \$20bn, due to be set in motion between now and 1991, the US appears to have little more to sell than Taiwan actually needs to buy.

To a western eye the obvious solution is still for Taiwan to reflate its economy and promote more domestic consumption. For all its new-found wealth, the streets of Taipei are dingy and drab, the air is thick with pollution and housing standards are manifestly poor. US economists, such as Mr Rimmer de Vries of Morgan Guaranty, have criticised Taiwan for "policy inertia" in this respect.

Public pressure for such a change is increasing, particularly for more government spending to combat pollution. But, for a government wedded to the concept of a balanced budget, this still smacks of dangerous inflationary experimentation.

That leaves the question of the exchange rate. The New Taiwan Dollar, which currently stands at around 31.5 per unit of US currency has risen by some 20 per cent since the Plaza Agreement on major currency alignments. The US would like it to rise still more, but, according to Mr Shu-Chieh Tsang, president of Chung-Hua Institute for Economic Research, this rate of appreciation is already way in excess of Korea, whose Won has risen by less than 6 per cent, and Hong Kong, whose dollar has not appreciated at all.

Already, at the present exchange rate, industrialists report the beginnings of a shake-out among smaller exporting companies. Privately they say they welcome it as Taiwanese industry should emerge leaner and fitter from the process, but it will not be without a heavy toll on economic growth, which is expected to drop sharply by the end of the year from 10.8 per cent in 1986.

In the long run, it could still be that US pressure on Taiwan to open up its economy and allow its exchange rate to appreciate will produce lasting benefits. In the short run, Taiwanese officials feel they are being punished for their success without any overall benefit accruing to the US so long as it does not embark on structural change of its own.

Mr Leo Tseng, director of the Board of Foreign Trade, puts it bluntly. "If the US stops importing sports shoes from Taiwan, they'll have to come in from Brazil—otherwise Americans will have to run barefoot."

## The business of education

From Mr P. Birch

Sir—Your editorial of May 30 applies a generous approach to the "radical" Conservative Party proposals for education. Would it not be useful to consider how such proposals would appear if they were presented in the context of normal business operations?

The business of education does indeed appear to be in a dire state: senior management (the headmasters) have indicated that they have lost confidence in top management (the Governors); and that they regard their staff as paid below market rates; there are consequently shortages in key trained staff (eg qualified physiotherapists and mathematicians); the quality control department (the Inspectorate) has warned that capital equipment (eg buildings) is often antiquated and in poor condition; and that there are frequently shortages of components (eg books); the work force seems dispirited and demotivated; and private and public schools have gone on strike for the first time in their history; top management has suspended free collective bargaining and seeks to enforce a contract which imposes a fixed list of responsibilities to replace previous flexible working practices which were often done on a basis of unpaid overtime.

Meanwhile the consumers (parents and children) have been increasingly turning to alternative providers (ie the private education sector) despite the vastly higher prices which are charged. The board is now seeking a vote of confidence from the shareholders (the electorate) and a mandate to introduce radical new ideas, the details and implications of which remain to be worked out.

Normal business prudence would suggest that top management has failed in its task of running the business and that its latest proposals are an attempt to distract attention from the record of failures of the past eight years. If radical change rather than a return to traditional management disciplines is needed, how about a management buy-out? P. G. Birch, 1 St John's Road, East Molesey, Surrey.

## A godless election

From Mr K. Layton

Sir—Joe Rogaly (May 28) is right to note the decline of organised Christianity as a background to this election. But he fails to mark the striking signs of spiritual growth outside the framework of organised religion or, unnoticed, within it.

## Letters to the Editor

Hierarchical, patriarchal, boring church "religion," spouted from pulpits, is certainly in decline. But the green movement, the peace movement, the concern for animal rights, the growth of vegetarianism and alternative medicine—all documented thoroughly by the Financial Times—are outward signs of a remarkable inner process of evolution and transformation which is affecting millions of people in Britain and elsewhere. There is a deepening revolution going on, the way western man has exploited nature and alienated himself from the rest of the creation. Phenomena like Live Aid and Sport Aid have testified that compassion, the heart of all the great religions, and the sense of brotherhood and sisterhood, are alive and searching for practical expression.

The question is whether our politics and politicians can respond to these new and hopeful energies. Or whether they, like many Christian churches, remain trapped in the old dead forms.

Christopher Layton, 6 Northumberland Place, Petersham Rd, Richmond, Surrey.

## Employment: the real debate

From Professor R. Layard

Sir—In his criticism of Roy Jenkins and me, Professor Minford (May 29) contradicts himself. At first he says one should measure unemployment by the number of people who get benefits. Then he says that in the past this measure has been "biased," as is shown by comparing it with the Labour Force Survey. So apparently he in fact accepts the Labour Force Survey as the truer measure of unemployment.

This measure records those who are without employment but actively seeking work. How has it changed over the last year? We can make a fairly accurate estimate by looking first at the numbers in work or seeking it, and then comparing them with the numbers actually having work.

The Department of Employment estimates in the latest *Gazette* that the numbers in work or seeking it rose over the last year by 200,000. This is almost entirely due to a growth in the number of people of working age. (The activity rate which grew by 0.5 percentage points a year from 1983 to 1986 is assumed to grow by only 0.2 points in the last year, and anything less would be surprising when the economy is

temporarily growing at over 3 per cent a year.)

This estimate of 200,000 is exactly the same as I have offered in your columns. Since Lord Young has disputed it, I am naturally pleased it has his Department's support.

How then does this growth of 200,000 in those wanting to work compare with the increase in the number actually in work? The London Business School (using the latest output and employment data) estimate that employment has grown by 200,000. They could be out a bit on one side or another, but not by any huge amount. So those in work or seeking work have grown as fast as the number of jobs. It follows that there has been no change in the number of people seeking work. True unemployment is unchanged.

There is only one qualification to this which relates to the growth of the Youth Training Scheme. But, even allowing for this, the best estimate must be that over the past year there has been no important fall in true unemployment.

Since this conclusion is based directly on his own Department's figures, the time has come when Lord Young must reply to Roy Jenkins' challenge. He must clearly say whether or not he accepts his Department's figures. Unless he disowns them, the world will conclude that the Government's unemployment is broadly unchanged. (Prof) Richard Layard, London School of Economics, Houghton Street, WC2.

## The economic climate

From Mr R. Foster

Sir—On May 19 you published a letter from Professor Layard and Mr A. Clark, and not surprisingly, as they write under the heading of the London School of Economics, it appeared to be critical of the Government's performance on employment (or unemployment!).

Most, or indeed, all of the criticism of the Government in this sector appears to come from people who talk about industry but who are not involved in any manufacturing organisation endeavouring to make a profit for its living, people in the latter sector view to take the opposite view—that the Government should be congratulated for creating an environment where companies, over the last 7 years, have become more efficient, more productive, more profitable,

and where they are increasingly taking additional bodies from the available free labour market.

Britain was declining as an industrial power for 50 years prior to 1979 and the rate of decline accelerated through the 1960s and 1970s, consequently, when the recession struck around 1980 Britain was more severely affected than other industrialised nations—although most of the European countries suffered heavy unemployment as well. A combination of a strong Government and the need for each individual manufacturing company to "survive in its own skin" in order to stay alive was, I venture to suggest, a fortunate set of circumstances in some ways. I had continued to meander along the well trodden path who would doubt that Britain would today be a manufacturing nonentity.

With regard to the unemployment figures, and figures which relate to those "who want to work"—is it implied within their letter that the public authorities and industry in general, should provide employment for those who feel that additional income into the household would be a good idea and, for that matter, those who arrive within these shores from foreign parts on a surprise that life would be better for them within the UK?

In specific areas of our country and within specific industries I believe that for the first time the problem has and is being tackled, and that the Government should not be criticised for an inherited problem which was compounded by a worldwide recession, nor is the problem about those who "want to work" is about those "who need to work" and a responsible government can only create an environment within which jobs are available and not, as has happened so often in the past, enlarged its own role as an employer to the detriment of the overall economic performance of the country.

R. Foster, Willow Lodge, Rossmill Lane, Hale Barns, Cheshire.

## Idle middle age

From Ms. A. Maguire

Sir—I wholeheartedly agree with Michael Dixon (May 20) and suggest that now—during the election campaign—is an ideal time to ask all the political parties what they propose to do about it (unemployment among the over-40s) bearing in mind that, although we are too old for work if we are over 40, we are not old enough to qualify for a pension until we are 60 or 65. What are we supposed to do in the meantime?

A. Maguire, 83 Southview Road, Southwick, Sussex.



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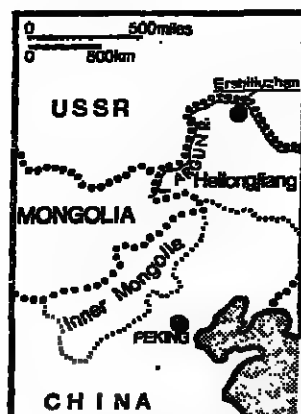
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## Peking admits errors on forest fires

By Robert Thomson in Peking

FOREST fires were still burning in Northern China last night, adding to the record toll of destruction in the past three weeks during which at least several hundred and perhaps several thousand people have died.

Xinhua, the official news agency, reported that eight new blazes had been discovered in Inner Mongolia, and several fires had restarted in the stricken province of Heilongjiang, prompting the mobilisation of more firefighters.

China has been secretive about the blazes, some of which were apparently started by carelessly discarded cigarettes and a faulty chain saw. It has refused to allow direct foreign assistance, preferring to rely on its own force of 42,000 firefighters, many of whom have used nothing more than a spade or water-soaked clothing to fight the intense flames.

As the death toll began to rise, the official Chinese media became more guarded about casualty figures. The lack of communication appears to have extended to many residents in the path of the blaze, who were unaware that they were in imminent danger and failed to take preventative measures.

The blazes in Heilongjiang province, near the Soviet border, have destroyed almost 700,000 hectares of forest, or almost 3 per cent of the country's forest cover, and economic losses are estimated by diplomats to be around £100m (\$160m).

Several revived blazes were continuing to burn out of control yesterday, with the largest, near Zhenyuan, in Heilongjiang, spreading across a 20 kilometre front. The new outbreaks in Inner Mongolia follow Government claims that the area had been made safe.

Diplomats say an accurate death toll may never be released, as the official figure of around 200 victims does not take into account missing persons and is likely to rise dramatically in coming weeks as firefighters inspect the affected areas.

Five men have been accused of accidentally starting fires in Heilongjiang and are likely to be severely punished, as the Government regularly makes an example of people found guilty of negligence and the seriousness of the fires could prompt the use of the death penalty.

The Government has admitted that mistakes have been made in tackling the blazes. The deputy minister of forestry, Liu Guangmin, conceded that much of the fire fighting equipment was of minimal use, and fire breaks cleared early in the campaign were far too small. Initially they were 80 metres wide, and were later widened to a more effective 200 metres.

Most of the lives were lost before the errors were corrected and after the fires swept through the towns of Xinji and Alai, leaving almost 60,000 people homeless.

China's reluctance to enlist foreign assistance included the Soviet Union with which it has a fire-fighting pact and which would have been more than willing to assist, bearing in mind Moscow's present drive to win friends in Peking.

In praising the heroism of the fire-fighters, Chinese television nightly showed pictures of soldiers armed with primitive equipment attempting to quell flames sometimes fanned by winds of 100km an hour.

Christopher Parkes on a remnant of history

## Fall of the House of Worth

THE FADED remnants of Worth, once one of the world's grandest haute couture fashion houses, but now little more than a company registration and a handful of trademarks, go on sale this morning.

The house which dressed Lily Langtry and Princess Eugenie in its heyday, is offered as an incongruous job-lot alongside the office blocks and factories which comprise the usual stock-in-trade of City Property Management Services.

For around £750,000, the buyer will acquire a chunk of rag trade history - the Worth, Miss Worth and House of Worth companies and all the associated trade marks... except one.

Parfums Worth, the perfumery business named for J. Worth, a 1932 vintage scent, and Dans le Noir (1985), is controlled by a French consortium.

The couture business, founded in Paris in 1859 by Englishman Charles Frederick Worth, started withering in the 1950s. It has been virtually mothballed for the past 20 years.

However, Mr Sidney Massin, the fashion entrepreneur who acquired it in 1963, believes it can be restored. Someone with the vision, and reserves, of Lord Hanson, perhaps. "It may sound silly, but a company like Imperial Tobacco (part of Hanson Trust) goes into all sorts of things that are not really related," he suggests.

At a less fanciful level, he is negotiating with the French group which took control of Parfums Worth a year ago.

Mr David Neale, chairman of City Property, proposes a company like Sears Holdings, which has successfully developed the Miss Selfridge retail chain, to re-

vive the name's fortunes. There is some scepticism among the grandes dames of fashion. Ms Anna Harvey at Vogue magazine feels Worth's moment is long past. "If you are going to spend a lot of money, why not pick a young designer? The feeling now is for youth and modernity."

Mr Massin's gamble on the acquisition appears not to have paid off. He admits his main interest in 1963, when Elna boomed and Mary Quant and her emulators were hogging the catwalk limelight, was in the lease of the company's London base. The couture business, he recalls, was "not exactly a ball of fire."

The only places where Worth fashions can be viewed currently are in London's Victoria and Albert Museum, assorted smaller repositories around the world,

## UK economy is centre stage as election approaches finale

By Peter Riddell, Political Editor, in London

THE Conservative and Labour parties in the UK yesterday engaged in vigorous exchanges over the economy, and the personal qualities of Prime Minister Margaret Thatcher, as the SDP/Liberal Alliance sought to avoid being squeezed by sharpening its attack on the Government.

The economy made its belated entry on to the centre stage of the election as Lord Young, the Employment Secretary, claimed that Labour plans would destroy over a million jobs, notably as a result of the proposed national minimum wage.

Labour also highlighted the economy, accusing the City of London of abandoning the needs of British industry and saying it would set up a special unit to monitor the activities of multinational groups within the UK.

Mr Neil Kinnock, the Labour leader, was also sharply critical of Mrs Thatcher, describing her as a "would-be Empress" who had surrounded herself with a palace guard of sycophants. He insisted he was attacking Mrs Thatcher's style and Thatcherism rather than her personality.

Mrs Thatcher responded to week-end speculation that Mr John Birt, the leader of the House of Com-



Thatcher puts policies first; Maverick seats, Page 10  
Kinnock accuses City, Page 11

mons, might be dropped from the cabinet. Following barbed comments by himself, she commented that he had a "very lively, ebullient personality" and "very original mode of thought." This was not regarded by observers as an endorsement of his position.

Mr Nigel Lawson, the Chancellor of the Exchequer, last night sought to maintain pressure on Labour over tax, claiming that the proposed increase in child benefit for the first child would be financed by the abolition of the married man's tax allowance. This, he said, would increase taxation for the married couple by over £7 (\$11.35) a week.

Together with Labour's planned reversal of the 3p cut in the basic rate of income tax, Mr Lawson said this would mean an immediate cut in the take-home pay of a married man on average earnings, without young children, of over £10 a week.

Labour has challenged this view, arguing that income tax bands would be changed in a phased plan so that almost no one earning less than £25,000 a year would suffer.

For all the activity of the combatants and strength of their language, the campaign is at present in a kind of limbo given the stability of the parties' poll ratings over the past week. The Tories' big lead remains unchallenged, and Labour's earlier advances have been checked, but not so far undermined by last week's defence row.

However, a Marplan opinion poll in today's newspaper undertaken yesterday, points to a slight dip in Labour support to 33 per cent over the past week and a further firming in the Tories rising to 44 per cent (43 per cent), with the Alliance up a point at 21 per cent.

All the parties are now waiting for two major polls tomorrow evening to see whether a new trend has been established.

## Maxwell files US lawsuit in HBJ bid battle

By Mike Smith

MR ROBERT MAXWELL, the British publisher, yesterday filed a lawsuit in New York to try to prevent Harcourt Brace Jovanovich, the US publishing group, from proceeding with plans aimed at thwarting a takeover by his British Printing and Communication Corporation (BPCC).

Mr Maxwell said he was still offering a friendly merger with the Florida-based group but he would not be drawn on whether he planned a formal offer. Last week he withdrew a proposed \$2bn bid after HBJ unveiled a \$3bn "poison pill" recapitalisation plan.

In the suit, filed in the federal district court in New York, BPCC said that the HBJ proposal was "unprecedented in its illegality" and that US company's management team had "unlawfully attempted to seize control of the corporation..." for the sole purpose of preventing any successful bid for HBJ.

Mr Maxwell said BPCC filed the suit both "on behalf of HBJ" but also as a holder of 400,000 ordinary shares in the company, which it bought for \$15m, and \$4m convertible debenture stock.

The suit seeks to stop HBJ issuing super voting preferred stock to First Boston Securities Corporation, the US group's financial adviser, and convertible voting preferred stock to the group's employee stock ownership plan. It also aims to halt payment of a special dividend which is part of the recapitalisation plan.

Mr Maxwell said the dividend payment of \$40 a share constituted a "fraudulent conveyance." It exceeded by more than \$1bn HBJ's surplus for dividends under New York law.

The suit also alleges that HBJ has:

- Failed to disclose that "one consequence of the payment of the illegal dividend will be that shareholders will be liable to repay it."
- Unlawfully coerced debenture holders to convert their stock into ordinary shares prior to the record date of June 8 "because HBJ may not have enough authorised common shares to honour conversions thereafter."

## THE LEX COLUMN

## The better part of Valor

When a small UK company unveils an audacious and dilutive bid for two rather larger US companies there can be no more convenient place for its shares than mid-way through a two month suspension. Valor, the UK company in question, has a reasonable enough recent record - underpinned by yesterday's 30 per cent rise in pre-tax profits - but it is not entirely unblemished and would not have been sufficient to prevent a slump in the share price after all the uncertainties of the deal had been totted up.

But while it is not clear why the Stock Exchange has afforded Valor such lengthy protection from the cold blasts of a cynical market, the company ought to be able to turn the breathing space to its advantage. The task is clear enough: to persuade those cynics that the Belzberg brothers have not squeezed a ruinous price out of Valor in exchange for a short-cut to international contention. The historic exit multiple of 19 implies, after all, dilution of well over 20 per cent.

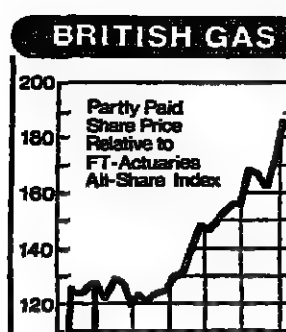
The argument that the Belzbergs have been forced into a sale to keep up the payments on all those junk bonds is perhaps not the right tack. They have, before this deal, already recouped more than \$200m of the early 1985 purchase price of \$350m for Scovill, the parcel of five companies of which Yale and Nutone were a part.

However, Valor is on firmer ground when pointing out that the 1986 figures for Yale and Nutone significantly underestimate real earnings. Stripping out interest alone - which is justified given that Valor is inheriting virtually no debt - pushes the exit multiple down to about 17.

There is little doubt that Yale and Nutone are sound cash generative businesses, that the previous owners have done much of the dirty re-organisation work, and that with more cashflow available to develop new products (rather than repay debt), faster and more consistent growth should be possible. Valor will, however, still be lucky to have squeezed out dilution by 1989.

### British Gas

The sudden strength of the British Gas share price appears to have taken more people by surprise than a few market makers in the City. BMW is still running an advertising



production, to be replaced by much cheaper gas from the Southern North Sea.

The only caveat for shareholders is that the share price is very highly geared to the result of the General Election, with the market convinced that if the threat of renationalisation is removed, the Japanese will move in. That may be a chimera, but it is not necessary to justify the price.

### BPCC/HBJ

There is more than one way to skin a cat and British Printing and Communication Corporation's lawsuit against Harcourt Brace Jovanovich is just another line of attack.

Should its legal arguments succeed, BPCC can reopen its offer, perhaps topping it up a bit from the original \$44 a share, if not matching the \$55 reached in the market. Without the prospect of the allegedly illegal \$40 a share special dividend, by contrast HBJ has said it is now legally obliged to pay having declared it, the HBJ shares would surely drop rather more sharply than they did yesterday.

If BPCC's action fails, it can walk away without too much loss of face and turn its attention to another failure in the US publishing pack, until that too adopts the recapitalisation defence.

Either way, the UK stockmarket was reasoning yesterday, BPCC's shares are likely to be in for some dilution and they recovered only 6p of their recent weakness to 303p. While Mr Robert Maxwell does not confirm or deny that a share issue is likely, the rumours will persist even if there is no deal on the table to finance.

HBJ stockholders must now be tempted to sell their shares, possibly to those willing buyers, the HBJ employee scheme and HBJ's management. If the recapitalisation plan went through the risk of having to pay back some part of the special dividend, should the highly geared HBJ end up bankrupt and BPCC's lawyers prove right, does not seem worth taking, especially as the upside may be limited once the friends of HBJ have voting control.

The sale of BPCC's own holding in HBJ, bought for \$15m and worth \$18.4m from the special dividend alone, should bring in enough to pay the lawyers' bill.

## Reagan's call for AIDS tests starts divisive political debate

By Stewart Fleming, US Editor, in Washington

THE BOOS which greeted President Ronald Reagan's weekend announcement that he was ordering mandatory testing for AIDS for such groups as federal prisoners and immigrants into the US, signalled the emergence of the dreaded disease as a political issue in the presidential and congressional elections.

Yesterday the decision came under renewed fire when Vice President George Bush, in a speech which underlined the political significance of the issue, was also hoed as he addressed the Third International Conference on AIDS in Washington.

Mr Bush confirmed that the Federal Government would soon require testing for prisoners and immigrants. But Mr Bush, who is a candidate for the presidency in 1988, put greater emphasis than Mr Reagan on the importance of ensuring "confidentiality" for those tested. He emphasised that the attack on AIDS must be aimed at the disease, not the people who carry the virus.

Campaign managers for several of the major presidential candidates have been predicting confidently that AIDS would indeed be an issue in the campaign, a controversial and potentially divisive one.

Within the White House, a fierce

struggle has been waged for months over the Administration's policy on AIDS testing, a struggle which has divided the ideological right, led on this issue by Mr William Bennett, Education Secretary, and from more pragmatic officials, including Dr C. Everett Koop, the Surgeon General.

Dr Koop's appointment was initially greeted with dismay by civil libertarians, for he was seen to be a member of the conservative right on health issues, including abortion.

But on the AIDS issue he has surprised and delighted his former critics by opposing mandatory testing and arguing that educating the public is the wiser course. He has advocated sex education including the provision of information about condoms for the young, a position which has left conservatives fuming about the promotion of immorality. Education in their view should be about the virtues of sexual abstinence.

In his speech to the American Foundation for AIDS Research on Sunday, President Reagan tried to avoid an unequivocal commitment to mandatory testing. He indicated that in many cases where the Federal Government had the right to act, mandatory AIDS testing would be introduced and ordered a review of "other federal responsibilities."

But in areas where the states have the power of decision, he called for "routine", not mandatory, testing. He was thus encouraging the states, for example, to introduce tests for people wanting marriage licences.

"Not only will testing give us more information on which to make decisions, in the case of marriage licences it might prevent at least some babies being born with AIDS," he said. "America faces a disease that is fatal and spreading. This calls for urgency, not panic."

Mr Reagan's call, which came on the eve of the economic summit in Venice where AIDS is also on the agenda, seemed designed once again to shore up conservative supporters, and give the President a leadership position on the issue, one which might serve to mute criticism that the White House has reacted slowly to the AIDS epidemic and failed to devote enough budget resources to it.

## Commercial paper market tops £1bn

By Stephen Fidler in London

THE STERLING commercial paper market surpassed the £1bn (\$1.63bn) milestone in April, a year after the Bank of England first gave the go-ahead for the market's inception.

The amount of outstanding paper - IOUs issued by companies with a final term of less than a year - jumped in April from £936m to £1.19bn at the end of March, figures issued yesterday by the Bank showed.

The pace of new issues quickened, with a record £252m issued in April, compared with £769m in March, while the amount maturing fell from £947m to £801m.

The pace of growth of the sterling commercial paper market has disappointed some of its proponents in its first year, but a number of factors came together in April which appear to have given it a boost.

One view attributes this partly to the huge fall in the so-called "hill mountain" - the Bank of England's holdings of commercial bills guaranteed by banks. The Bank of England has been selling these bills to mop up some of the surplus liquidity in the UK money markets, caused partly by its heavy foreign exchange intervention.

Bank figures showed that the amount of commercial bills held by its Issue Department fell to £4.8bn at the end of April from £7.02bn at the end of March and £11.7bn at the end of 1986. The suggestion is - though not from the Bank - that this may have pushed up yields in the commercial bill market and made it cheaper for companies to issue commercial paper.

Investors have recently become more convinced of market liquidity - the ease and cheapness with which they can move in and out of the market.

The UK market is dwarfed by the huge US commercial paper market which has grown rapidly in recent years to reach a size of \$350bn. Many London banks and securities houses are also involved in issuing Eurodollar commercial paper, US dollar obligations trading outside the US.

Eurobonds, Page 23

## World Weather

Place	Temp	Wind	Cloud	Temp	Wind	Cloud	Temp	Wind	Cloud		
Algeria	25	15	7/5	Algeria	25	15	7/5	Algeria	25	15	7/5
Amman	25	15	7/5	Amman	25	15	7/5	Amman	25	15	7/5
Baghdad	25	15	7/5	Baghdad	25	15	7/5	Baghdad	25	15	7/5
Bombay	25	15	7/5	Bombay	25	15	7/5	Bombay	25	15	7/5
Buenos Aires	25	15	7/5	Buenos Aires	25	15	7/5	Buenos Aires	25	15	7/5
Calcutta	25	15	7/5	Calcutta	25	15	7/5	Calcutta	25	15	7/5
Cairo	25	15	7/5	Cairo	25	15	7/5	Cairo	25	15	7/5
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Edinburgh	25	15	7/5	Edinburgh	25	15	7/5	Edinburgh	25	15	7/5
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Hong Kong	25	15	7/5	Hong Kong	25	15	7/5	Hong Kong	25	15	7/5
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Washington	25	15	7/5	Washington	25	15	7/5	Washington	25	15	7/5
Zurich	25	15	7/5	Zurich	25	15	7/5	Zurich	25	15	7/5

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## Record deal on software

Continued from Page 1

The next biggest company in the systems software business is Panosoft Systems, with revenues of only about \$100m in 1986.

Under the agreement announced yesterday, each of the 17m shares outstanding in Uccel will be swapped for 1.89 shares of Computer Associates.

In morning trading on the York Stock Exchange, Uccel shares jumped \$12 to \$44, while Computer Associates were down 5% to \$27. At this price, the value of the Computer Associates offer was \$48.7 per Uccel share and the whole transaction was valued at \$794m.

## Bonn accepts arms option

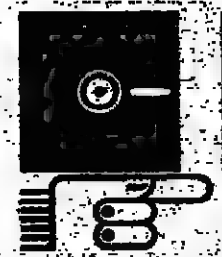
Record deal on software

Continued from Page 1  
Pershing IAs should be excluded from an INF agreement and they could become the subject of some hard bargaining in the weeks and months ahead.

In addition to its position on the "double-zero option," the West German Government also came out in favour of early talks on the reduction of nuclear "battlefield" weapons below a range of 500 km - which Chancellor Kohl originally wanted included in an INF agreement - the abolition of chemical weapons and the limitation of conventional forces.



# SECTION III FINANCIAL TIMES SURVEY



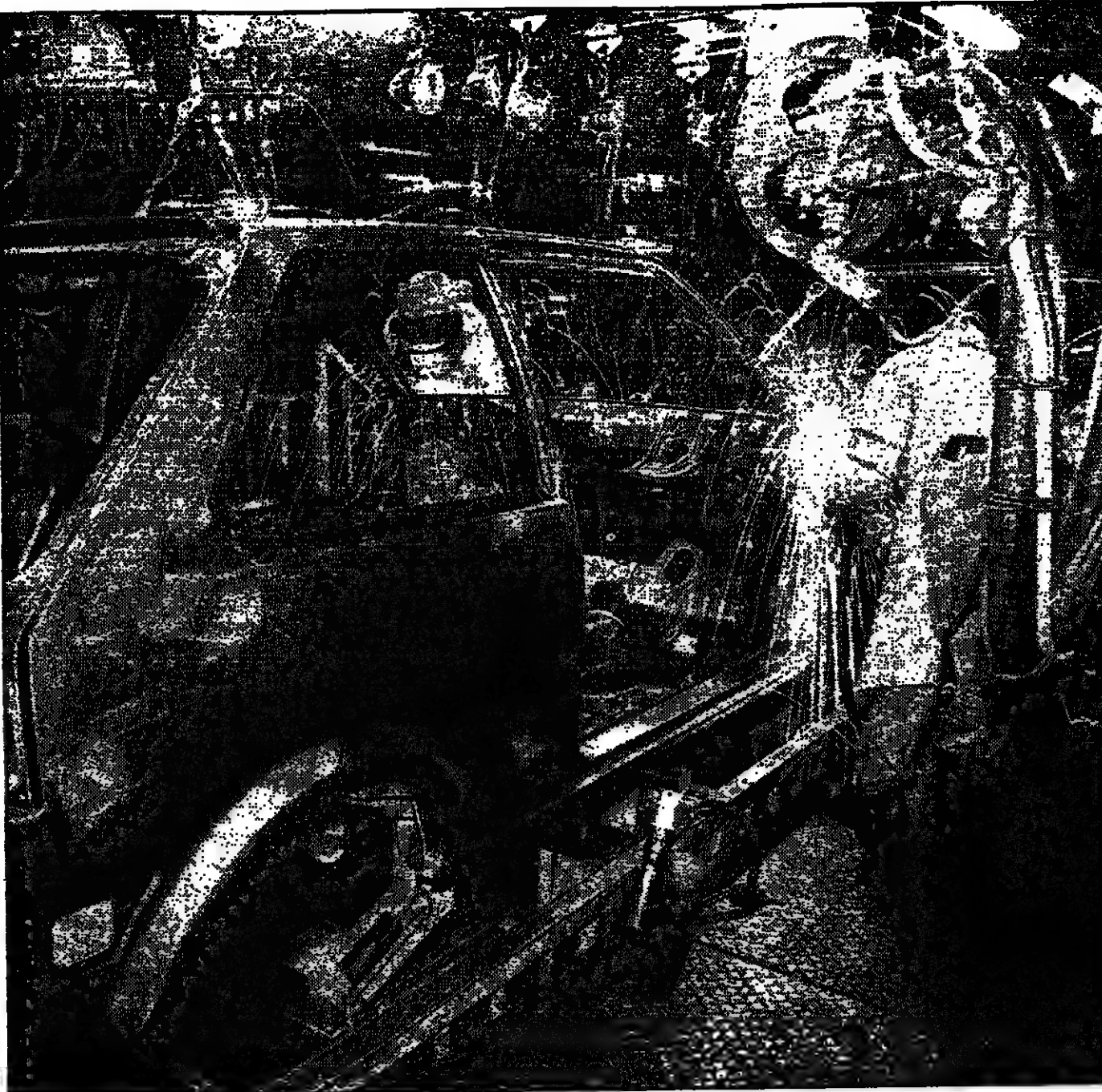
World manufacturing industry has been slow to install the most advanced computer-based production

techniques. But, reports Alan Cane, competitive pressures, improved, cheaper technology and the urgent need to invest sensibly means that the time is now right for the move towards

## The factory of the future

MANUFACTURING TECHNOLOGY in the developed world is at a watershed. The next few years should see manufacturing industry installing, at an ever increasing rate, sophisticated, computer-based machinery and advanced production systems. The ultimate goal is computer-integrated manufacturing (CIM)—complete computer control of the manufacturing process from product design through to production and despatch. The rewards to be gained from the successful introduction of these advanced manufacturing techniques (AMT) are substantial—lowest cost production, small or negligible inventories, short product cycles, minimum lead time to market. But if it were easy, of course, everybody would be doing it already. Manufacturing industry has been slow to install the most advanced computer-based techniques but that is simply an indication that everybody now knows there is no simple prescription for achieving profitability through advanced automation. So why should the time now be right for the move towards the factory of the future? The answer is partly competitive pressures, partly improved and

cost effective technology, and partly the realisation of an urgent need to invest sensibly in manufacturing. There have been some successes in AMT. IBM, the world's largest computer manufacturer, took its own medicine and has been installing CIM technology in its own factories over the past three years. The figures it quotes now are remarkable and a powerful indicator of what can be achieved. Its "defect-free" approach to manufacturing is still in its early days but it suggests that by the end of the century it could save \$15bn across its 35 plants world-wide. According to Mr Egon Winkelmann, director of IBM's German plants in Mainz and Berlin where hard disk drives are manufactured, cycle time has been improved from 20 days on one HDDA production line in 1983 to six days in 1986. He has also managed to cut drastically his inventory of materials. "We have improved our material turnover rate from 8.7 times a year in 1983 to 25 times a year in 1986." But on most of the small number of operational CIM plants, the jury is still out. The most spectacular example is General Motors which in 1979 put the



## Computers in Manufacturing

finishing touches to a plan which would cost \$40bn and involve the redesign of every one of its cars and factories, installing the most advanced technology in a drive to achieve the lowest manufacturing costs. Now eight years later and with some \$60bn spent, it is clear that the plan has brought

few of the expected benefits. GM is falling behind its arch rival Ford in productivity and profits. Its new, integrated factories are not, by and large, achieving either the cost savings or the efficiency expected. The reasons for GM's fall from manufacturing grace are many and complex and it would be

entirely unfair to make the new technology the scapegoat. As Mr Tony Domenico of EDS, the GM subsidiary which carried out computer integration for the automobile giant pointed out: "We accomplished what we set out to do, which was cutting GM's manufacturing costs and giving it a better

response to the market." "But that may not, in itself, have been enough to give GM the advantages it desired." He points to the GMT 400 project, a truck manufacturing operation based on five separate plants which he says is giving the cost benefits claimed. What GM seems to have failed

Computer integrated manufacturing a multitude of choices  
Machine Standards  
MAP bandwagon rolls on Page 2  
Systems difference between PC and workstation becomes blurred  
US scan of automation back in vogue Page 3  
Japan seems a worrying shortage of software specialists

Europe motor industry overcapacity slows investment page 4  
Robotics international links grow  
Management philosophies same goal—different paths  
Case study H. J. Heinz page 5  
Machine tools sharpening production techniques  
Training the poor relation page 6

to appreciate is that new technology has to be matched to changes in management and in the way the manufacturing process is organised if the best results are to be achieved.

As Mr Domenico has said: "There is a great danger that information technology will be implemented in a fashion which merely institutionalises old management practices."

But if GM proved an object lesson in how to spend money on automation without reaping the expected benefits, it also acted as a major catalyst for change with its sponsorship of the Manufacturing Automation Protocol (MAP), a major step forward in factory floor integration (see article page 2).

For the majority of companies, the use of computers in manufacturing turns around small, robust computers fit for the factory floor and software written to automate specific parts of the manufacturing process.

It is for these companies that special demonstrations of AMT such as the "Impact" system have been prepared. With integration carried out by the consultants Arthur Anderson, Impact is a 22,800 sq ft mini-factory turning out printed circuit boards.

It will be on display at Automated Manufacturing Systems '87, a trade exhibition taking place this month in Chicago, Illinois. It brings together some 150m of hardware and software from 17 different vendors. They include Allen Bradley, Cincinnati Milacron, Digital Equipment Corporation, Intel, IBM, Intergraph and Tandem.

The disciplines that impact ties together include computer-aided design, robotics, artificial intelligence, process control, vision systems, manufacturing resources planning (MRP) software and automated materials handling.

The second year the minifactory has run at the show, it should be a persuasive demonstration.

Where are the majority of companies now? According to Mr Don Dickerson, director of research for Computer Application Consultants which has carried out a study of 3,800 manufacturing companies in Europe with more than 50 employees, the level of interest is growing

quickly albeit from a very low base.

The percentage of German companies with an integration strategy of the kind demanded by Mr Ward is 5.8 per cent at present but is predicted to be 13 per cent by the end of 1988. The corresponding figures for the UK are 1.8 per cent growing to 14 per cent. For France it is 4.3 per cent now and will be 13.8 per cent by the end of 1988.

Much of the new enthusiasm is driven by the cheapness and reliability of today's hardware and software.

With the development of cheaper, smaller computers and programmable controllers, it became fashionable to link a group of computer controlled machines into a "cell" capable of creating a complete component and of being simply reprogrammed to manufacture another component entirely.

The microcomputer brought computerised engineering to the desk top. Low-cost, powerful workstations of the kind pioneered by Sun and Apollo made computer-aided design a reality for smaller companies.

At the same time, the Japanese experience was teaching companies that advanced technology is neither enough nor essential for profitable manufacture. Kanban—or "just in time"—management methods do not rely on electronics although an electronic messaging system between manufacturer and supplier or customer can act as a powerful way of securing the relationship.

Although the Japanese are showing great interest in the MAP concept, their splendid manufacturing performance has not so far made much use of such advanced concepts. All of which suggests that the plunge into AMT may be more waterfalls than watershed with a real risk of drowning.

But there is little choice. The advantages which a company, which successfully integrates and automates its manufacturing processes, gains are such that failure to keep up will be equivalent to commercial suicide.

\*Manufacturing Technology International, Sterling Publications, 01-258 0866.

\*Automation in Manufacturing, Computer Application Consultants, six volumes, 01-940 7890.

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## COMPUTERS IN MANUFACTURING 2

Computer-aided design and engineering is beginning to show its potential. But profitable automation is difficult and presents . . .

## A multitude of choices

THE ESSENCE of computer integrated manufacturing is the application of computer processing power to the management of a factory. This is a simple enough idea in itself, implying vast potential improvements in productivity, and an equal reduction in physical human effort. But where does the concept begin and end? What are the boundaries in which the computer has to be contained?

The practical answers that are emerging to these questions underscore two main issues. First, they demonstrate just how complex large scale manufacturing can be, and therefore how difficult it is to automate a plant in its entirety; and second, they show up the current limitations of computer technology in tackling organisational problems as opposed to high-volume number-crunching. The technology revolution, in other words, is only just beginning to reveal its potential in the production of wealth on the shop floor.

In a recent explanatory paper on computer integrated manufacturing, ICL, the UK computer group, and one of the companies that is emerging as a challenger in this field, sketched in the problems facing manufacturing industry in the following way.

"If you had a greenfield factory," it said, "all the products you need to build a computer integrated manufacturing system are available today. However, the cost of the project could well be prohibitive... expensive to build and somewhat inefficient to use. Further, such a system could be expensive to maintain as technological change made it desirable to replace elements of it."

An ideal system of the type referred to by ICL would be one in which the whole of the factory's operations would be linked together in a common computerised organisation. All of the machines could talk to each other and pass information to and from simultaneously. Information on any event in any part of the factory which impinged upon the operation of another part of the plant would be passed on and would prompt a reaction. The communications system would be at the heart of this structure, co-ordinating the activities of the computer-aided design department with the computer-aided manufacturing and test department, and also linking into the planning and control processes and auto-

mated materials handling systems.

Achievement of a manufacturing sector, featuring such smoothly running computerised organisations as this, is still several years away. The challenge is of much greater complexity, for example, than the sort of data-processing problems which faced the airlines when they launched their computerised booking system. In reshaping manufacturing, companies are grappling with a three dimensional issue, partly one of technology, but also involving organisational structure and difficult economic questions.

First, on the technological side, standards are only just beginning to be established for a unified language system to help intelligent devices work together. In an industry which has grown up piecemeal, with engineers installing localised computer systems to solve discrete and specific problems, companies have not up to now placed a great priority on compatible machinery.

As a consequence, a great deal of work has to be done to develop systems that will integrate different functions within the factory. De facto standards are beginning to emerge, helped by manufacturers with sufficient size and influence to carry weight in industry in general. This is the impetus behind the growing application of the MAP standards, established by General Motors of the US as a method of communication in an automated factory system; it has equally reinforced the growth of the TOP (technical and office protocol) system for managing office networks—specifications which were developed by the Boeing aircraft company.

Second, companies moving towards computer-integrated manufacturing systems have to grapple with formidable organisational and human problems. Studies indicate that many engineering companies have not even begun to computerise their design offices, let alone the shop floor; even for those organisations that have managed to overcome the initial hurdle of computerising certain sections of their operations, expansion of the system demands heavy investment in people and time.

Finally, the economic benefits of adopting a radical approach to integrated manu-

facturing are not clear. Companies looking for competitive advantage may achieve an adequate lead on their competitors by a more gradualist approach. Indeed, many consultants argue that the Japanese, acknowledged as the manufacturing leaders in the industrialised world today, have gained this position by steady incremental improvements and attention to detail rather than any great leap forward.

This type of creeping development towards an integrated system is what is happening in practice in the UK and Western Europe. Computerised techniques are already well advanced in design offices. On the shop floor, many companies have set up certain operations on a computerised basis. Warehouses have been automated and linked into the manufacturing process so that parts can be pulled out to fill up gaps in the production chain at the right moment.

Typically, however, shop floor systems are not tied together, so that each chunk of computerised production exists within its own individual section. Computer programs, which are able to track parts through the production process, and tell managers where they are on the line and exactly what has happened to them, are in their infancy. Vertical communications from the design office to shop floor machines are similarly undeveloped.

The current challenge for the specialist supplier companies is to design the systems that will allow these separate areas to be pulled together into a common manufacturing structure. This process of integration is particularly difficult because it cannot be done by one computer company alone—a point which arises from the complexity of factory organisation.

No single computer company has the level of specialism which makes it an automatic choice in each area of automation. Ideally, therefore, manufacturers are looking for expert organisations with the skills in software design and sufficient knowledge of the hardware products to be able to link, say, a workstation specialist in the design room with an expert process control on the shop floor.

Which suppliers are going to win in this market battle? At the moment, a whole host of companies are bunched up in the pack, jostling for position in a market which is still too young to have shaken out many of the contenders.

One group is composed of the computer manufacturers, led, inevitably, by IBM, which is now working its way down from its traditional back-office data processing departments into wider applications. Honeywell has also made a big drive into the market with a system designed to offer a comprehensive solution to integration.

Other computer companies have already established niche positions from which they could expand. Digital Equipment Corporation, for example, is strong both in supplying computers for engineering design offices and on the shop floor. Tandem Computers has also broken into shop floor applications in the US and West Germany, and is now moving into the UK, deriving its appeal from the extra reliability of its fault tolerant machines.

Several large electronics groups are also making a pitch for the market—companies such as Siemens in West Germany, or Philips in the Netherlands, for example. These concerns believe they can combine data processing skills with the special integrated circuits that will be at the centre of the communications systems in the plants; while having large factories of their own where they can try out their systems.

Third are the machine tool specialists who have traditionally dominated the supply of equipment for the factory floor, and are hoping that they can now add on the additional skills that will integrate their products into the operations of the rest of the factory.

Finally, there are the consultants and systems integrators, who may not be in the hardware business at all but believe they will consequently be in an ideal position to bring together the hardware specialists.

With such a multitude of choices it is clearly going to be difficult for manufacturers to know which way to jump—until, that is, the market has had a chance to sort itself out.

Terry Dodsworth



The console subsystem of Taylor Instrument's new process control and management information system, which integrates data acquisition, controls plant operations and presentation, and eliminates conflicts. The company is a subsidiary of Combustion Engineering.

## MACHINE COMPATABILITY

## MAP bandwaggon rolls on

IT HAS BEEN an eventful 12 months in the short life of MAP, the controversial factory communications standard proposed by General Motors (GM) early in the 1980s.

On the positive side, MAP (Manufacturing Automation Protocol) continues to win friends and influence the world's manufacturers. In North America alone over 300 organisations have pledged their support for MAP. They include Boeing, Du Pont, Kodak and McDonnell Douglas.

The first factories featuring MAP communications are coming on stream. GM's experimental factory of the future at Saginaw, Michigan, among them.

There is now a European initiative complementary to that mounted by GM and its supporters called CNMA, the European Communications Network for Manufacturing Applications.

ICL, the UK's largest computer manufacturer, claims it will be the first British manufacturer to exploit the new standard when it unveils KIDMAP, a project to apply MAP technology to its Kidsgrove, Staffordshire, printed circuit board factory.

On the debit side, there was an extraordinary outburst in January this year from Mr Kenneth Olsen, founder and head of Digital Equipment, the world's second largest computer manufacturer. Speaking to journalists he branded the MAP pioneers as "a group of amateur, part-time hobbyists who have formed a committee and have said: 'We are going to do our own thing'."

On the face of things, it is hard to understand why such an obviously sensible and progressive idea as MAP should have attracted so much controversy. It is only one of a number of sets of standards which are being promoted by various bodies in an attempt to bring some order and harmony to the chaotic world of computer networking.

The most important of these is Open Systems Interconnection (OSI) promoted by the International Standards Organisation (ISO) and the International Consultative Committee for Telegraph and Telecommunications (CCITT).

The idea behind OSI is that any computer should be able to communicate with any other computer system—that is, pass messages and have them understood and acted on.

Until OSI was established, computer manufacturers created their own communications methods—IBM's Systems Network Architecture, for example—and it meant that installing computers of more than one make in a company gave the data processing manager his or her biggest headache. OSI is a set of seven layers of communication rules dealing with everything from the site and shape of the plug which goes into the back of the computer cabinet to the way the system deals with long text documents.

There is now growing support for OSI from computer manufacturers in the US and in Europe.

MAP is similar to OSI in most essential details. The installation of a MAP-based communications network in a factory should ensure that all the computers can "talk" to design computers and they in turn talk to robots and programmable machine tools. MAP in fact is the "glue" that holds together all the elements of computer-integrated manufacturing.

On the design and office side, TOP (Technical and Office Protocol) is another OSI look-alike sponsored by Boeing to provide standardisation for computerisation of technical support.

The first point of contention, however, is that MAP is a GM

inspiration which has fired a crusade for standards across the manufacturing world but is still primarily of advantage to the market.

GM's basic need, as it saw things in 1984, was some common way to integrate the 4,000 or so programmable devices it used in its factories, only 10 per cent of which could communicate outside their own, immediate manufacturing process.

It was on the verge of a mammoth, multi-million dollar investment in new manufacturing technology.

By 1990 there would be 200,000 such devices, estimated Robert Eaton, the then vice president of advanced product and manufacturing engineering.

So MAP was born. Now GM will not accept computer-based equipment from outside suppliers unless it obeys the MAP conventions.

Mr Olsen of DEC, nevertheless, has continued his public attacks arguing that while communications in the factory are essential, all the MAP initiative has done is add another computer standard to the many which exist already.

But DEC itself has announced a factory computer which communicates via a MAP interface.

As Mr John Dwyer, a MAP specialist, believes that Mr Olsen knows MAP is inevitable which is why his company is investing millions of dollars in research and development.

He thinks Mr Olsen is contriving a controversy to win short-term benefits for DEC's own communications standard.

For many manufacturers, however, MAP seems still to be more fable than fact. All that is about to change. From the middle of next year there will be no excuse for any manufacturer to say that the means of moving to MAP are not available.

There are two reasons for this:

First the major MAP trade exhibition, the Enterprise Systems Event to be held in Baltimore, Maryland, starting on June 1 1988, will insist that only commercially available MAP and TOP products can be shown.

These will have to conform to the most up to date specification for MAP, Version 3.0.

At the same time, software is being made available to ease the conversion problems for those manufacturers who have already installed MAP systems

using the earlier Version 2.1 specification.

At a MAPTOP user group meeting in Pittsburgh last month, for example, Concord Communications which is one of the more important MAP product vendors, demonstrated a system which enables an important element of MAP 3.0—the Manufacturing Message Service (MMS)—to run on MAP 2.1.

There has been only fair progress in the development of conformance tests for MAP, which is worrying as this is critical to its acceptance as a world wide standard. Standards are only useful if everybody follows them exactly; as standards makers are only human, gaps and loopholes are only too prevalent.

The Corporation for Open Systems, a US group of manufacturers promoting OSI, MAP and TOP, has so far let one conformance test contract—to the UK's National Computing Centre (NCC) although three had been expected by now. The NCC is to develop a test for one of the layers of rules which make up the MAP standard.

For all these niggling worries, it seems that MAP is already a bandwaggon which cannot be halted.

Alan Cane

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## COMPUTERS IN MANUFACTURING 3

## Machine vision

## Protector of quality

MACHINE VISION systems have grown up. They represent a mature technology which is being used in real factories and properly applied, works well. At the recent Fifth Financial Times Manufacturing Forum for example Mr Antony Abbott, production engineering director of Hardy Spicer, praised the effectiveness of a vision-based crack detection system which the company has installed at its Birmingham factory.

The company that supplied the system, British Robotic Systems (BRS), has been less successful. BRS effectively collapsed in 1985 after its British Technology Group backers failed to find a buyer for it. Another casualty of continuing depressed demand in all UK automation sectors was Visual Machines of Manchester, a company set up to exploit a vision system developed at the Wolfson image analysis unit at Manchester University. It went into receivership last July.

Poor UK demand also affects non-UK companies. Automatrix in the US is one of five vision companies in which car giant General Motors has a stake. Automatrix's UK offshoot, based in Warwick, has installed a number of systems in Austin Rover but, like many of its others, is hard pressed to find business elsewhere. It is a US company which informed observers regard as having some of the best systems available in terms of ease of use.

Yet last year Iran wound up its UK subsidiary because of poor sales and lack of interest from UK venture capitalists. Iran's business is now handled by MTE of Leigh on Sea, Essex, and systems builder IPI. Even in the US, according to one estimate, sales of vision systems fell from \$90m in 1985 to \$85m last year, almost entirely because of cutbacks at General Motors. Automatrix in the US has suffered financial and legal problems. Gould, which bought a vision business from Westinghouse spin-off Automation Intelligence, has got troubles too, though its vision business is probably the least of them.

Then a general engineering inspection market is tough because inspection is not easy

to automate and some users have had their fingers burned by badly conceived systems. Humans seem easier to install and more flexible. Low UK wage rates compared with the US and Japan make automation particularly unattractive here.

But humans tire and their attention wanders. The greatest argument for machine vision is that a properly set up vision system will reduce scrap, rework and warranty costs. It can collect the data that, using statistical process control techniques, can detect a tendency for variation in tolerance long before an out-of-tolerance component or part is actually produced or an expensive machine damaged.

## Machine vision detects a variation in tolerance long before it is actually produced

This is why the advantages are increasingly apparent to companies with household names, who have to protect their reputation for quality, and why there are some successful vision suppliers.

Last year, Iran's US sales doubled from \$3m to \$6m, despite the overall contraction in the US sales. Iran is not one of the "GM five" but, according to Iran president Mr Stan Lapidus, is GM's largest vision supplier. US company International Robotic Intelligence (IRI) is not linked to GM either but it is profitable and has successfully managed a public share offering in the US. Its UK offshoot is in Solihull. Iran and IRI both supply robust, easy to use systems and, a telling point, are getting repeat business.

Among the GM-backed companies, Iridiact is doing well. Like IRI it has found niche markets, particularly inspection of wire-bonding systems in the electronics industry. In the UK, Computer Recognition Systems (CRS) is a British company which has been profitable for some years, according to its managing director, Mr Bill Adaway.

The vision market is becoming highly specialised. Even in the inspection market, distinctions are now made between online and offline systems, between general purpose and special purpose systems, and between two dimensional and three dimensional systems.

Vision is also used increasingly for robot guidance or assembly tasks. A good example of vision-controlled robotics is Metatouch, a system which guides a welding or sealing robot along a seam. Japan's largest controls company, Fanuc, has taken a licence to make and sell this highly successful British system.

Mechanised inspection systems are working at ever higher speeds. Together with more computing power, this will in turn overcome a second problem, that of dealing with inconsistent shapes, though it is less clear how far in this direction manufacturers want the technology to go. Mr Lapidus says that only "journalists and academics" ever ask him about overlapping parts, real users never do. "It is a non-problem. Industrial processes produce parts in an ordered way."

Mr Don Braggins, who has several years of experience as an independent vision consultant, says this is true in Iran's market, which is inspection and measurement, but less true where a vision system is being used for guidance, say to give instructions to a robot.

In these applications the problem is not so much overlaps, as parts that are merely touching. Mr Braggins says it is no solution to try to arrange that the objects do not touch. But vision systems are overcoming the problems. Mr Braggins gives the example of a vision system which C. E. Johansson has installed to help move large engine castings at Saab Scania in Sweden. The robot uses the vision system to pick the castings off a pallet and load them into a machine. The vision system can distinguish between castings whether they touch or not.

John Dwyer

The writer is editor of Fin Tech & Automated Factory, a Financial Times Newsletter.

THE CHIEF feature of today's market for computer-aided design and computer-aided manufacturing (CAD/CAM) systems is the continuing importance of the personal computer. Dataquest estimates that seven PC-based systems are sold for every three larger systems.

The market leader in PC-based systems, Autodesk, is selling its AutoCAD software at a rate of \$1m a week or more. And Autodesk is only one, albeit the largest, of a list of hundreds of PC system suppliers. The market remains congested despite predictions a year ago that the users of the systems, design engineers and draughtsmen, were tiring of the limited functionality the PC offers. The users appear not to agree.

This is why even the bigger suppliers are attempting to turn the PC boom to advantage. McDonnell Douglas Information Systems (MDIS), for example, put a development team together and came up with Crossroads, a stand-alone three-dimensional surface modelling system.

Surface modelling is a half-way house between line or wireframe models, which can be ambiguous and confusing to the eye, and solid models, which fully define an object but need lots of computer power and from which it is difficult to derive a cutter path for a machine tool. Surface models are usually adequate for defining the complex surfaces of cars and aeroplanes and they can also generate the numerical control CAM information needed to machine the surface the designer sees on the screen. It is easy to see why users are impressed by the availability of such features at software-only prices of about £2,000.

MDIS says its first target for Crossroads is its existing user base. Presumably, if the number of CAD terminals in its customers' factories proliferates the demand for larger systems running MDIS's full Unigraphics CAD software will grow as the limitations of the PC become apparent. The PC is slower than the full-scale engineering workstations supplied by (Dataquest's market-share order) Apollo, Sun Microsystems (adopted here by ICL), Hewlett-Packard, DEC, IBM, Silicon Graphics and others: the UK's two leading suppliers are Westward and Whitechapel. And the operating system the PC uses, PC-DOS, makes it unable to use more than a fraction of the memory it can physically accommodate.

Similar reasoning lies behind



An engineer using computer-aided design systems at Austin Rover's £5.2m design centre at Canley to define the surface geometry of a Montego. The system uses data collected from a clay model by a computer-controlled measuring machine in the background.

## Systems

## Difference between PC and workstation blurs

Intergraph's decision to market C-CADD, a PC-based subset of Intergraph's full interactive Graphics Design Software (IGDS) for two-dimensional drafting and Microstation, another IGDS-based design and drafting package, if users insist on buying PC-based systems, both Intergraph and MDIS want them at least to buy systems they can upgrade to something

better. And all the big users who could afford huge mainframe-based systems have been used up. It was this that led market leader Computervision, to port its CAD software on to cheaper workstations. Workstations have now settled into a more-or-less standard pattern, and this trend is likely to accelerate because of pressure from users like General Motors, GM, which has already changed the face of engineering communications with its Manufacturing Automation Protocol (MAP), set up an engineering workstation platform specification project (EWSPSP) to draw up a list of ideal workstation characteristics.

Most items on the EWSPSP list are already familiar in today's

workstations, whose chief features are that they use the Unix operating system and can be linked together over Ethernet. Their performance is usually in the 1m to 5m instructions per second (Mips) range, though few argue that Mips are a particularly relevant or realistic performance guide. Unix makes possible the use of windows, which allow users to call up and manipulate pages of information from their own or another system on a network.

The distinction between the PC systems and the workstations is becoming blurred as the price of workstations dips down to the £10,000 mark and the performance of the PCs rises. Advances in microprocessor technology are transforming engineers' perceptions of the performance gap between the workstation and the PC.

So far, most attention has focused on the Intel 80386, normally referred to as the "386," a 32 bit chip which has already been incorporated in around a dozen PCs, and will be used in the System 2 from IBM. IBM's adoption of the chip provides a good example of the way the technology is affecting the market. IBM has its own workstation, the RT, a new and impressive version of which was announced in February. But the promised performance of the System 2 and its price—£7,000 for the top model, available at the end of this year, compared with many times this for an RT-based system—is likely to affect the market for the RT as well as IBM's PC AT.

But not yet. No operating system is available which takes full advantage of the 386's architecture and it may be two years before the fully-defined 386 operating system arrives.

In spite of this and the crowding of the market, there is everything to play for, even among big companies. The Xerox Corporation, for example, made a decision to install Intergraph CAD/CAM systems for prototype design work only within the last three or four years.

Scott McNeely, founder and president of Sun Microsystems, says CAD "ought to be in the hands of every engineer, and it is not." On a visit to a South Korean shipyard last year he saw hundreds of engineers using drawing boards to design ships' hulls. Even in the US aerospace industry, Dataquest estimates that there are still 10 engineers for every CAD workstation.

John Dwyer

## General Motors has been shocked to find its highly automated US plants do not match Japanese efficiency, reports Louise Kehoe

## Islands of automation back in vogue

BY MOST measures, the US factory automation business is booming. Expectations of sky-rocket growth have, however, proved to be overly optimistic and manufacturers of automation equipment, including robots and computer-controlled equipment, are coming to terms with more moderate growth.

Dampening the US factory automation market is General Motors' apparent disenchantment with automation as the answer to Japanese competition. As the largest US spender on manufacturing automation, and as a self-appointed leader in the building of factory automation computer standards, GM's influence over the US automation market is enormous.

The US automotive industry accounted for nearly two-thirds of 1985 US investments in automation with GM accounting for more than half of the industry's spending. GM is estimated to have spent over \$40bn on factory automation over the past six years, building three highly automated factories from the ground up and refurbishing a

dosen existing plants.

GM's capital spending spree has now, however, produced the increases in productivity that the company expected. Much to GM's chagrin, the productivity of its highly automated plants is half that achieved at the California factory of "Nummi," a GM-Toyota joint venture, which lacks fancy robots and computer equipment. Japanese management style and labour relations appear to be at least as important in raising efficiency than technology, GM seems to have concluded.

Last year GM cancelled at least \$80m in orders for robots and computerised factory equipment, sending a shock-wave throughout the industry. As one industry analyst puts it: "When GM sneezes, the factory automation business catches cold."

Influenced by GM, other US manufacturers are re-examining their plans for factory automation. While thousands of US companies are installing computerised factory automation equipment, only 100 to 150 are

working toward computer integrated manufacturing, says Harbor Research, a market research group.

"Islands of automation" are in vogue again, according to Hewlett-Packard, one of the major US suppliers of computers for the factory. "Rather than attempting to automate whole factories, US companies are installing computer-integrated manufacturing in bite-sized chunks."

This piecemeal approach to factory automation involves the installation of minicomputers to direct robots and programmable equipment on the factory floor. Typically a "cell" will cover 25 to 200 pieces of equipment. The workcell approach has been boosted by the explosion in the use of microprocessors in shop floor equipment, say industry analysts.

The US market for cell controller-type computers will grow from an estimated \$447m this year to \$1.15bn by 1990, according to the Yankee group, a market research firm.

Another roadblock to the implementation of computer-integrated manufacturing is the lack of data communications standards for shop-floor equipment. The manufacturing automation protocol (MAP) initiated by General Motors attempts to link together such production functions as order entry, inventory control, robotics, numerically controlled machinery and quality control. MAP is still evolving, however, and not many MAP-based products are currently available, say industry analysts.

US purchases of automated factory equipment could also be slowed by recent changes in tax law, analysts suggest. Until recently, manufacturers were encouraged to buy new equipment by favourable investment tax credits for plant modernisation. With the new tax law these benefits are significantly reduced.

Despite such problems, computer-integrated manufacturing remains an important trend in US industry with a growing number of US manufacturers coming to the conclusion that they must automate to survive foreign competition.

US purchases of factory automation systems doubled to \$18.1bn from 1980 to 1985 and will double again by the end of the decade, according to Dataquest. The market research firm expects computer-aided design and engineering to show the highest growth rate with sales increasing from \$2.5bn in 1985 to \$6.5bn in 1990. Computer-aided manufacturing investment will rise from a 1985 level of \$15.4bn to over \$32bn, they forecast.

## US factory automation equipment

	Value of the market (\$m. at current prices)				
	1980	1981	1982	1983	1984
Shipments of metal-cutting and metal-forming machine tools			5,567	3,170	3,863
Consumption of machine tools		5,566	4,387	2,673	
Machining centres:					
—production	413	483	339	186	
—consumption	450	625	494	318	
Horizontal spindle NC-turning machines:					
—production	321	347	239	175	
—consumption	451	604	402	280	
Production of industrial robots:					
—in value	*(25)			170	185
—in units	*(614)			3,234	3,500
The CAD/CAM market:					
—in value				1,500	6,000
—in number of units (work stations)				12,000	63,000
—in number of units (systems)				3,000	14,000
The factory automation market					15,000
The US market for NC-units programmable controllers, computer based controllers and robots				1,200	4,100
Revenue from the US industrial automation business (robots, computer control rooms, CAD, programmable controllers)				9,000	*(38,000)

\*1979, 1980, 1981.

Source: Economics Commission for Europe

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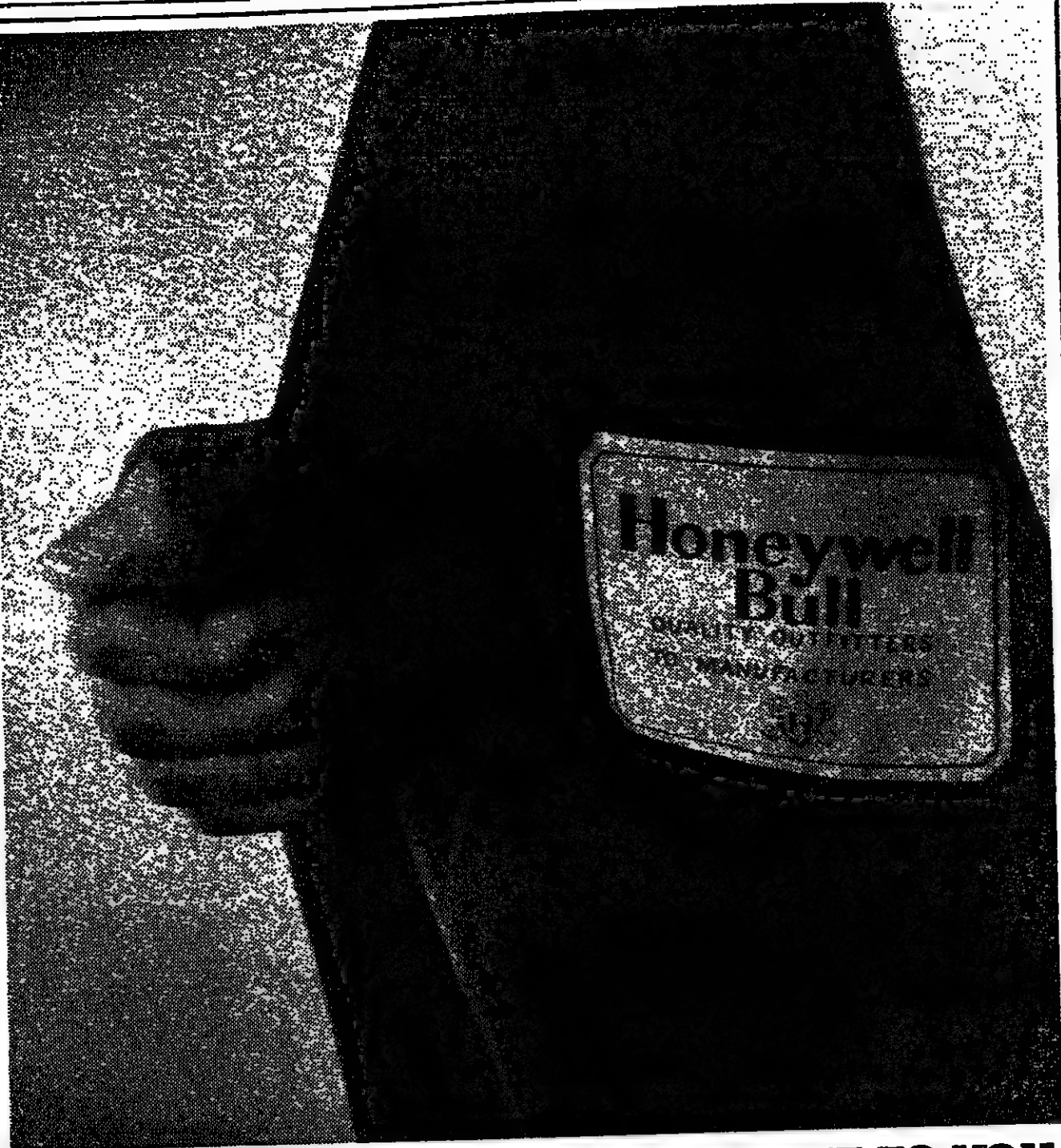
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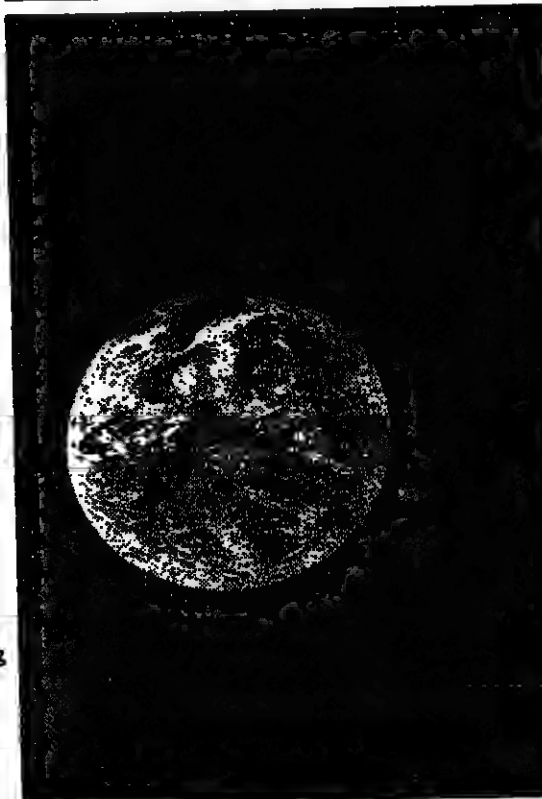
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A shortage of software specialists is worrying Japan's manufacturers

## Threat to high-tech dream

THE INCREASING computerisation of operations remains a central goal of Japan's leading manufacturers. They are in agreement however that the ultimate concept of "Computer Integrated Manufacturing" (CIM)—where every process, from customer order, through design and manufacture, to delivery, is co-ordinated and run by computer—is a very distant objective that might never be fully realised.

Nevertheless, incremental progress is being achieved and Toshiba Corporation, one of the most advanced companies in the field of flexible manufacturing systems (FMS), claims to have attained a level of 90 per cent computer control within the manufacturing stage of some of its "mature" product ranges, notably fluorescent light bulbs.

Mr Yoshitake Sajima, computer systems section manager of Fujitsu notes that "there is no fully-fledged CIM in Japan yet. But, as preliminary steps, CAD/CAM is rapidly being introduced into manufacturing processes."

Fujitsu's approach, in common with most Japanese companies, is to tackle computerisation within each of several separate spheres of operation, with linkage a secondary objective.

These begin with "laboratory automation" at the product design level, making use of management and customer input, followed by "computer-aided engineering," including the processing of documents and the gathering of data from the labs, and thirdly CAD-CAM processes.

The fourth stage involves the FMS operations within the factory itself, entailing automatic warehousing, production scheduling, material handling, robotics control, numerical control processes and monitoring.

Finally there is "post-FMS," which includes the control of shipments, order acceptance and production planning.

Mr Sajima stresses, however, that the picture is greatly complicated by the variance in the mode of operations, and the need for customisation, which is invariably present within different manufacturing sites across the country.

"Needs are quite different in each location. Among Fujitsu's three business groups, covering semiconductor, computers and telecommunications equipment, each factory needs a special CIM system."

A further difficulty is presented by the intractable nature of the physical structure of, and the ingrained work practices within, the company's older plants.

Sajima says "it is harder to introduce CIM into the older factories than into recently-constructed plants. The most difficult problem comes in changing the workers' ways of thinking."

Workers often don't like to adjust to new systems. But we don't intend to force a new approach on workers. From above, we have to encourage them to think for themselves."

The primary importance of the human element in CIM development is echoed by Toshiba's information systems group executive, Mr Ohtsuka, who observes that "different customers demand different standards, different specifications. Individual structures have developed for their own particular ordering and contracting methods."

In the electric power generation field, for example, "product liability" is typically the chief concern, whereas for steel-making firms "cost control" is a higher priority.

These differences add to the complexity of streamlining and standardising administrative processes, which are essential pre-requisites of effective computerisation.



A 90 per cent level of computer control has now been achieved in the manufacture of some mature products in Japan, but the goal of totally integrated computer controlled production from design to delivery remains a long way off.

Mr Ohtsuka says that differences in philosophy among company members are also important: "The different groups within Toshiba which deal with individual customers have widely differing opinions about the best strategies for computerisation."

Toshiba totally restructured its operating divisions earlier this year, shifting its emphasis from the heavy electric to the industrial electronics sectors.

Ease of future computerisation, and a convergence of related interests, was an important factor in the changes.

Toshiba's Fuchu works, which specialises in making computer control systems, is widely recognised as being one of Japan's leading examples of automated manufacturing.

The company claims that production lead times have been slashed by 71 per cent at the plant, which uses large numbers of industrial robots and a four-level computer control hierarchy.

The hierarchy ranges from a plant-wide management system, using a mainframe unit, through to a mini-computer line-control management and mini-micro-controlled shop level/cell.

### Europe

## Motor stockpiles slow investment

Another flexible machining cell, this time for the machine tool industry, has been ordered by Gildemeister Automatic Turning, Silefeld, from Heller.

Including two machining centres with central tool and pallet storage, the cell is to be extended to six machines by 1990.

In the UK, an example is the order won by NEI Thompson Welding Systems to supply a six-robot welding installation to Hilton Mining Machinery at Wrexham.

In Spain, Renault Automation is building a cylinder head assembly line including six robots for FASA's plant in Palencia. Many small robotised cells are being built for the fast-growing area of electronics assembly, where robots are needed to insert odd-form components in printed circuit boards.

But in general automation equipment manufacturers are finding the going harder and a number of companies have recently gone out of business.

Dainichi Sykes Robotics, a subsidiary of Dainichi Kiko of Japan, went into voluntary liquidation at the beginning of the year. Another casualty this year was manufacturer of automated machinery and robot arms, Syke Instrumentation, which went into receivership. It must also be bad news for the industry that Unimation (Europe) is in the process of cutting its workforce in Telford from 200 down to 130 and possibly even to 100, and that the UK subsidiary of French AK Robotics ceased trading at the end of March.

These upsets in the UK robotics industry are reflected in figures just released by the British Robot Association. Only 475 robots were installed during 1986, a 20 per cent decrease on the 585 installed during 1985, which itself was a 27 per cent decrease on the previous year.

This gives a total robot population at the end of 1986 of 3,683 which compares with an estimated 12,400 in West Germany, 7,500 in France, 5,500 in Italy and 3,800 in Sweden, according to the Fraunhofer Institut für Produktionstechnik und Automatisierung.

Back home, the opening of the new Yamazaki factory at Worcester, due in mid June, is an event worth watching out for. Expected to be even more sophisticated than the highly automated and flexible factories Yamazaki has built in Japan and the US, the company president, Mr Teruyuki Yamazaki, says the factory will operate with extended unmanned operation, improved precision, and shorter lead times.

**West European market for machining centres and flexible manufacturing systems (\$bn)**

	1984	1990
All types of flexible manufacturing (cell, system and complex)	120	750-1,500
of which: full FMS	60-70	500-750
Machining centres	372	850

Source: Consultants Frost & Sullivan



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Roy Garner

When these figures are analysed in terms of number of robots per head of working population, Sweden comes out on top with 38.7 per 10,000 which is second in the world after Japan. It is also interesting to note that the Swedish robot manufacturer ABB has the largest share of the European robot market with a reported 36-40 per cent.

Further afield, Eastern Europe is attracting increased attention from equipment suppliers. In Czechoslovakia, for example, Cross International recently announced a \$4.5m order to supply Skoda with an integrated manufacturing system for high volume production of motor car differential cases.

John Brown Automation is also working on a \$4.5m contract to supply a \$4.5m engine assembly system incorporating seven robots.

Still in Czechoslovakia, DeVilbiss has received an order from Zax for two robots to spray release agent and paint on to truck headrests.

In Russia, meanwhile, following a recent order for spray robots from Liko Bus, near Moscow, GEC Electrical Projects has won an initial order worth \$2.5m from Gaz, the car and lorry manufacturer, for an 18 robot painting system on three lorry cabin production lines.

GEC expects substantial follow-up orders from Gaz as a result of this order. An agreement on this is expected shortly. Also in Russia, Babcock has just announced a \$1m order to supply automatic engine test equipment.

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Anna Kochan



## COMPUTERS IN MANUFACTURING 5

## Management philosophy

## Same goal: different paths

OF ALL THE major advances which have been made in the use of computers in manufacturing, one application stands out as crucial and controversial—that of computer-aided production management.

In a large factory the value of computers for design, machine control, and the collection and storage of crucial data is now largely unquestioned. While there is always debate over whether the best system or supplier for a particular job, the technology itself is evolving steadily along a predictable path and the applications are proven.

Production management systems, however, are complex management tools which reflect and to some extent dictate an overall manufacturing strategy. Their impact is felt down on the shop floor, up in the board room and, increasingly, in non-manufacturing functions such as sales and distribution. The role of such all-powerful systems in modern manufacturing is now the subject of fierce debate.

Over the past 15 years most major manufacturing companies and software suppliers have been influenced by the ideas of the US "guru" Oliver Wight, who developed the closed loop Manufacturing Resources Planning method, commonly known as MRP. This methodology involves the use of a powerful computer system to match all a factory's requirements against an accurate forecast to produce a manufacturing schedule.

Most production management software is based on MRP principles and most of the world's leading manufacturers have implemented large MRP systems. Rigorous adherence to the MRP philosophy has produced some spectacular results, reducing inventories, work in progress and boosting the return on assets.

But MRP is far easier in theory than in practice—and even in theory is not easy. A recent survey by the British Institute of Management found that only 55 per cent of MRP users thought the investment had paid off. Last year a survey by the Science and Engineering Research Council concluded that often even advanced users do not understand how to use the software properly.

Even successful implementations are painful. One large MRP software system, running on a mainframe or large minicomputer, can add several million and take years to choose and implement. One supplier, Cullinet, estimates that the cost

of the technology is only 15 per cent of the total implementation cost.

With these considerations in mind, and in the face of intense international competition, it is not surprising that many manufacturing companies are turning to simpler but fundamentally more radical solutions. Just-In-Time (JIT), a manufacturing philosophy which has been most successfully implemented in Japan, and Optimised Production Technology (OPT), originated by the Israeli kibbutz Goldratt, are both gaining new converts.

JIT is based on the argument that the cost of holding and managing stock can be eliminated if items are made or ordered when they are required and not before. Machine set up times, therefore, become the major component of manufacturing lead time, which are constantly reduced.

In addition the absence of inventories concentrates attention on where inefficiencies and quality problems lie. The overall effect is shorter lead times, lower overheads and increased profitability. In theory, and particularly in low-volume environments, the scheduling necessary is simply based on demand and involves no heavy computerisation.

Unlike the other methods, OPT is a proprietary system. The worldwide intellectual property rights of the "thoughtware" and the required software have just been bought by a newly formed UK company, Scheduling Technology.

OPT has 100 users worldwide including General Motors, Vickers, Lucas, Phillips and STC. OPT focuses on bottlenecks in the manufacturing process. Once bottlenecks—such as one critical but slow machine or the late supply of one part—have been identified and tackled then lead times can be reduced.

Like JIT, OPT challenges some fundamental accounting principles. Machines which are not bottlenecks, for example, are best left idle rather than producing goods for work in progress.

The secret of OPT lies in the software which Scheduling Technology sells. For each set of circumstances it is capable of quickly calculating where bottlenecks lie and producing an optimal schedule. A typical implementation will cost £250,000. According to Scheduling Technology, unlike MRP it has a 100 per cent success rate.

The problem for manufacturers is that each of these three

methods—MRP, JIT and OPT—appear to reach the same goal by very different methods. Each has produced spectacular results at major installations and each has been promoted with money spinners or glamorous-sounding playthings.

Few companies are making profits on sales of robots. Defined as computer-controlled handling mechanisms for factories, the machines usually consist of jointed arms which can do a variety of jobs under the supervision of a computer, with the end of the arm shaped as a gripper or "hand" holding the tool required for a specific application.

For users, the equipment has brought undoubted benefits in certain established areas of application such as paint spraying and welding, although the entry of the systems into newer and more difficult areas like assembly of electronic components has been far less successful.

A fundamental problem holding up sales has been the complexity of the software and systems engineering which is needed to make a standard robot capable of performing a useful task in a plant. Typically, a robot costing about \$50,000, requires expenditure on these "extras" of two to three times this figure before the machine can swing into action.

SOME 25 years after the start of the world's robot business, companies in the industry are still not sure whether the machines will turn out to be valuable money spinners or glamorous-sounding playthings.

Few companies are making profits on sales of robots. Defined as computer-controlled handling mechanisms for factories, the machines usually consist of jointed arms which can do a variety of jobs under the supervision of a computer, with the end of the arm shaped as a gripper or "hand" holding the tool required for a specific application.

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The world's first industrial

robot set to work in 1961, in a General Motors factory in New Jersey. It was installed by Unimation, the US company which created the robot industry and which was formed in 1960 by two pioneering entrepreneurs, Joe Engelberger and George Devol.

Initially, use of robots went ahead only stutteringly. By 1980, the world population had reached a mere 23,000. Since then, sales have increased at a greater rate, with the number of installed robots reaching 141,000 by 1985, according to the Japan Industrial Robot Association.

Japan is by far the biggest user of robots, accounting for 93,000 systems at the end of 1985. The US comes next with 20,000, followed by West Germany with about 9,000 and France with roughly 6,000. The UK has only about 3,000.

These figures include only those machines which can be programmed to do a range of different jobs, and do not encompass the less sophisticated "fixed sequence" manipulators which are less flexible.

In total, the world's robot industry accounts for annual sales of \$2bn, including both hardware and software costs.

The industry leaders, in the US, GMF Robotics (a joint venture between General Motors and Fanuc, the Japanese robot sup-

plier), Cincinnati Milacron and Westinghouse. The latter bought Unimation for \$107m in 1982.

The top West European robot supplier is Asea of Sweden, while in Japan the leading companies include Kawasaki Heavy Industries, Matsushita Electric, Toshiba, Hitachi, Yaskawa, Fanuc, Daihen and Star Seiki.

From the outset, the robot industry has had to struggle with an image problem, caused by the name given to the equipment it sells.

Engelberger and Devol have admitted that they chose the word "robot" for their machines because they thought it would give them good publicity. Prior to the advent of Unimation, the word had been reserved for mechanical monsters of science fiction films.

The machines sold by Unimation—and by most of today's robot companies—are, in reality, prosaic items of factory hardware and would be better titled automatic transfer mechanisms. Indeed, this was the title which Ford, the US car company which was also among the earliest users of the machines, insisted on using for the hardware until relatively recently.

Although cutting labour costs is usually cited as being the main benefit of introducing the systems, just as important in

many cases is the need to introduce higher speed and accuracy into manufacturing processes. A robot applying welds to a car seam, for instance, can work to far smaller tolerances and much more quickly than a human.

Increasingly, robots are acting as transfer mechanisms in factory systems that connect networks of machine tools and which turn out families of metal goods under the control of computers.

In the robots industry as a whole, a trend in recent years has been the increased sales and technology links between robot suppliers in different parts of the world. Japanese companies are frequently at the centre of such arrangements, a sign of the generally increased desire by high-technology concerns in that country to internationalise their businesses.

For example, robots made by Toshiba are sold in West Germany by Messerschmitt-Boelkow-Blohm, in France by Saclat and in Sweden by SIDA; Yaskawa has sales agreements with Robotec of West Germany, Thorn EMI in Britain, Torsteknik in Sweden and Spain's Anoma de Electrodo.

In the area of technology links, in which different companies use each other's technical know-how in products under licence, such arrangements

exist in robotics between several Japanese companies and concerns in Western Europe or the US. Relationships of this sort include those between Kobe Steel and Trallfa (Norway), Mitsubishi Heavy Industries and Voest Alpine (Austria), Murata and Prab (US), Daihen and American Robot, Kawasaki and Adept (US), and Hitachi and General Electric (US).

In the research field, the main area of activity lies in moves to create new generations of robots which operate not according to set programs of instructions but which have some degree of innate intelligence—that is they are able to work out actions for themselves.

Such machines would require sensors like TV camera or touch mechanisms to relay information from the outside world. They would also need advanced types of computers, possibly using novel programming systems that mimic human thought.

Equipment of this kind could be used in a wide variety of jobs where the robot is required to cope with unexpected events—such as handling goods of different shapes and sizes. But the cost and complexity of the systems make it unlikely that they will see widespread use in factories until the next century.

Peter Marsh

## Robotics

## World sales and technical links grow

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## Case study: H. J. Heinz

## Keeping track of the beans

A COMPANY with a major share of the market for soups, baked beans and pasta products does not necessarily have to keep looking over its shoulder at the competition. But if it wants to maintain its competitive advantage as market leader, it has to keep a tight grip on costs and productivity.

This is the position of H. J. Heinz Company, the UK subsidiary of the US food multinational, which over a five-year period plans to invest in new production lines for its high volume products.

Mr Tony Park, general manager for management services at Heinz, joined the company in 1983, taking over responsibility for the traditional management information systems side of the business.

The process control and industrial computing side, and the new lines come under the control of a separate engineering function. The decision to adopt a Computer Integrated Manufacturing (CIM) strategy was made after the decision to computerise the lines.

"The idea is that when an event occurs anywhere in the business, we can capture the data immediately and set on it rather than getting someone to write it down on a piece of paper and send it to a central computer for data entry later on."

"For example, when an item arrives at the gate house, it can be entered into a terminal there and then. The aim is to keep track of events as they occur from the placing of orders, receiving of raw materials and moving of stocks, to the making of products."

The bulk of the investment on Heinz's ambitious \$5m CIM project is being concentrated on the company's core products—pasta, baked beans and soups. It will be introduced in three phases over a period of five years and includes the purchase of a new IBM mainframe computer to supplement the existing ICL mainframe, but excludes the Digital Equipment (DEC) minicomputers used for process control in the factory.

The software has to span the equipment of all these manufacturers and Mr Park's predecessor has recommended a manufacturing software package from Cincom called Control Manufacturing.

"Cincom's Mantis package provides highly effective fourth

generation development tools on ICL, IBM and DEC equipment. They passed the criteria which we set."

The central networking "architecture" employed at Heinz is DEC's Ethernet, largely because this is the base communications protocol used for its process control equipment.

A third party supplier was brought in to build the bridges which enable terminal workstations based on the IBM Personal Computer to talk to IBM, ICL and DEC machines via Ethernet. It was achieved by using "windowing" software on the PCs to manage multiple telecommunications sessions with the different host computers.

"This is an exciting development because, for example, we will be able to simultaneously sign onto an IBM application and a DEC application from a PC, import the data from both applications down into a financial spreadsheet running on the PC, merge it in with text from a word processor, and then transmit it through electronic mail on the network."

The network has been designed as an open-ended system to incorporate future communications standards, including Manufacturing Automation Protocol (MAP).

"MAP is largely theory at this stage. It will be important in the future, and we are endeavouring to make sure that we do not close the door on it."

"We have tried to choose suppliers who have a commitment to enabling our equipment to be upgraded to take advantage of opportunities like MAP and broadband communications networks."

The introduction of the new MRP system will take place over a period of 18 months and is the first of three phases which will make up Heinz's \$5m investment programme over five years, and embrace costing work-in-process and finished goods stocks, line loading and planning, production management, labour management, engineering, maintenance control, and asset management.

"We are calling it our Computer Integrated Business (CIB) programme because, although we are a manufacturing company, our system plan covers a lot of other areas of our business including finance, sales, and marketing."

Boris Sedacca



## COMPUTERS IN MANUFACTURING 6

The power, performance and accuracy of CNC machines appeal to both small and large companies alike

## Machine tools that sharpen production techniques

BRITAIN RELIES heavily on the performance of its manufacturing industry. Latest figures from the Treasury show that this sector earns £76.8bn a year — which represents 25 per cent of the UK's gross national product — but to maintain this contribution in the face of increasing foreign competition, manufacturers are having to improve their production techniques.

Computer numerically-controlled (CNC) machine tools have now become firmly established as the modern-day workhorses of manufacturing industry. The power, performance and accuracy of such machines appeal to both small and large companies alike — it has been estimated that within the next three years, CNC will be fitted to 75 per cent of all the machine tools sold in Europe.

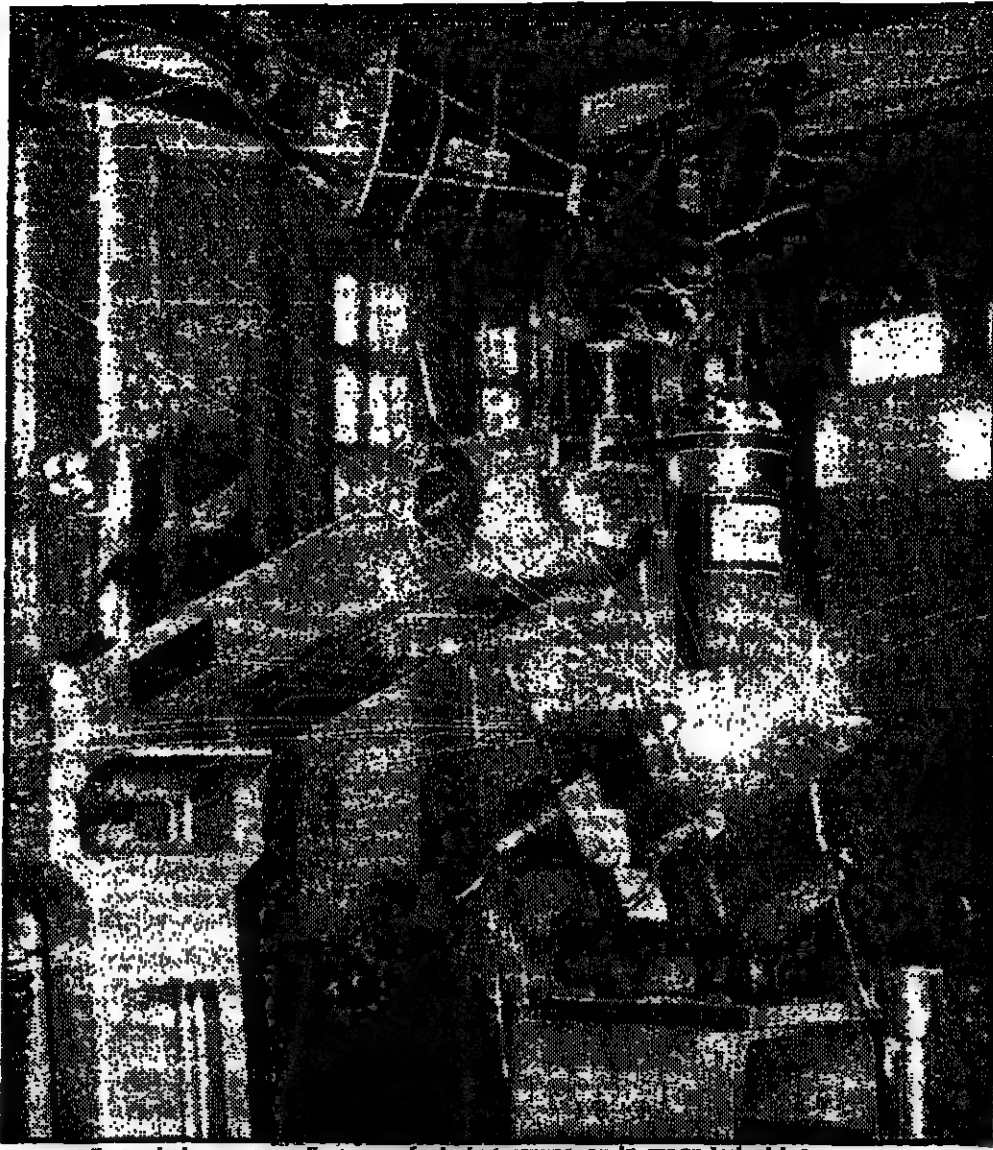
As well as controlling metal-cutting and forming machine tools, the computer has a central role to play in further improving the performance and utilisation of such production equipment. Today's computers are also being used to design machine tools, create part programs, schedule work loads, generate process plans, produce job quotes/estimates, simulate work flows and link machines together into manufacturing cells and systems.

Recent capital investment by many leading UK companies shows that CNC machining cells and systems are being seen as the way forward for manufacturing industry. Jaguar, for example, has recently ordered a £2m manufacturing system based around FM100 machining centres from KTM in Brighton.

Austin Rover has meanwhile installed a nine-machine turning cell, centred on Churchill CNC lathes supplied by T1 Machine Tools. Neil Tools has just ordered five HC30 horizontal machining centres (valued at £550,000) from Beaver Machine Tools.

A survey from the Department of Trade and Industry into the use of computers in manufacturing industry shows that the UK engineering industry plans to spend more than £750m on hardware and software in 1987 alone. A large proportion of this investment will go on computer-aided techniques to improve manufacturing efficiency on the shopfloor.

This year, Rolls-Royce and



Laser welding robots are speeding manufacturing processes in many industries

Computervision (CV) have signed a five-year agreement for CV to supply integrated CAD/CAM systems. And Dowty Fuel Systems has decided that it will control all aspects of planning and production at Cheltenham with the MAS-MCS manufacturing control system from Hoskyns. Pathtrace, meanwhile, has announced that it has taken orders worth over £510,000 for its relatively low-cost CAM systems in the past four months.

The pairing of CNC machines and computers can form a

powerful combination and one that will help restore Britain's competitive edge in world manufacturing markets. Visitors to the CIM 87 exhibition at Olympia, London, have been seeing, first-hand, how computers can optimise production engineering and manufacturing management tasks. The exhibition has followed the DTI's successful CIMAP event by featuring practical displays of integrated systems. Around 30 companies are demonstrating networking at CIM using a spe-

cially installed broadband cable.

While forming a key element in Advanced Manufacturing Technology (AMT) projects, CNC machines have strongly come to the fore as industry has been forced to accept smaller work volumes and much more variety — yet still maintain productivity and profit. It is far more economical to make 500 identical components, rather than produce 50 different batches of 10 parts.

But single set-up working on

CNC machines, where different machining operations are performed at one time, has helped alter the economic balance, since it has led to more versatile machining centres and the birth of turning centres (which can drill, mill, saw and slot, as well as turn parts).

Such machines can eliminate many or all secondary operations and so help reduce lead times, work in progress and machining cycles. Small batch production can then become an economical proposition.

More powerful CNC systems and improved machine designs now enable many additional functions to be controlled from part program instruction. By automating part-changing, work-holding, work-holding, sensing, monitoring and certain inspection tasks, CNC machines can run unattended for long periods.

They can also be linked together to form flexible machining cells and systems with all the operations scheduled and controlled by a cell computer. But such developments have compounded the programming instructions required by the individual CNC machines.

Computer-aided manufacturing (CAM) systems greatly simplify the rigours of programming CNC machine tools. They speed program creation, reduce errors, offer tool path verification and enable instructions to be quickly modified.

Modules are available for all the different types of CNC machining processes. Most CNC machine tool builders now offer some form of computer-assisted programming package. Companies such as Deckel, Traub, Bridgeport and Index have developed their own CAM type systems, while other builders supply badge-marketed systems.

CNC machines can also be fed direct with part programs from a CAM system (without recourse to paper tape) by using direct numerical control (DNC) methods. Another key feature of CAM is that it can provide the vital link with all the design data stored in a CAD system. An integrated CAD-CAM system shares common manufacturing data for both design and production operations and is a big step toward full computer-integrated manufacturing.

While computer-aided manufacturing provides a direct route to integration, most sys-

tems are used on a stand-alone basis simply to increase CNC machine utilisation. In terms of hardware, micro-based systems have the largest share of the CAM market with around 55 per cent and these is a wealth of programming software from which to choose.

Tuffley Precision, a small subcontractor in Surrey with six CNC machines, typifies the benefits from computer-aided manufacturing. Programming a machining centre for complex car components has been reduced from four to 1½ days by using Pathtrace CAM. More general advantages such as increased machine uptime and shorter lead times are helping the company achieve the maximum return on its CNC machines. Tuffley is just one of 650 Pathtrace users in the UK.

Martin Atkey

## World machine tool — supply and demand

Selected countries (\$bn)	1983	1984	1985
World machine-tool production	19.5	20.8	19.9
of which			
Japan	3.5	4.7	
USSR	3.1	3.0	
Federal Republic of Germany	3.2	3.0	
United States	2.1	2.7	
Machine-tool consumption:			
USSR	4.3	4.1	
United States	2.6	3.7	
Japan	2.4	3.1	
Federal Republic of Germany	1.7	1.5	
World market for industrial automation	15.0		65-75
of which			
the market for computer integrated manufacture (CIM)			26

Source: Economic Commission for Europe.

## Training

## The poor relation

WHILE THE value of installed computers in British manufacturing industry has grown from £750m to more than £2.5bn in only three years — and concepts of Just-in-Time (JIT) manufacturing techniques from Japan and the US are being accepted as standards towards which to aim — the actual gains from automated manufacturing systems are often below expectations.

"A major constraint is not the shortage of computer hardware or software, but rather the skills needed to successfully implement it," says Mr John Kirkham of Advanced Systems Incorporated, one of the international leaders in information technology specialising in the computer integrated manufacturing field. The group's British subsidiary, ASI (UK), has a library of more than 500 video presentations for users of new manufacturing techniques.

While training is "still the poor relation" in the automated manufacturing field, an increasing number of small companies are now offering "live" training courses to help companies use new technology to the competitive advantage.

A new generation of micro-

based software systems which are increasingly integrated and easy-to-use, may also be a key to giving manufacturers the advantages that computerisation has long promised. Products such as Fourth Shift, the latest to emerge in a crowded market, are helping to reduce the "sitting-by-Nellie" learning process by incorporating on-line and off-line training techniques which provide the long-term consistency in education which has previously been missing.

According to TRW Manufacturing Systems Products, which market Fourth Shift in the UK, "so much of the total cost of installing any computerised data-handling system is incurred in establishing the database that a prime concern of any user must be to assess the ease, or otherwise, with which these functions can be carried out."

"Instruction manuals are all very well, but people are often resistant to the idea of ploughing through them — users become frustrated when they come up against a brick wall," comments Mr Ian Henderson, general manager of TRW's new venture.

"When a user of something like Fourth Shift can actually press one button to reveal text on a screen which directly relates to the problem, then potential user-resistance disappears. The user can move ahead, gaining confidence. This step is as important as the quality of the software itself."

The training facilities incorporated within Fourth Shift include videos for generic and specific explanations. These are linked to exercise and training booklets in plain English which assume that the reader has no computer knowledge at all.

Each application has a training database on diskette which can be used either in isolation or at the same time as Fourth Shift is in operation, without affecting the genuine data.

Behind each display lies comprehensive text, accessible at any time by depressing one function key. Since there is inevitably a turnover of staff, the retraining exercise is guaranteed to be consistent. Furthermore, people can be trained — or train themselves — at their own speed.

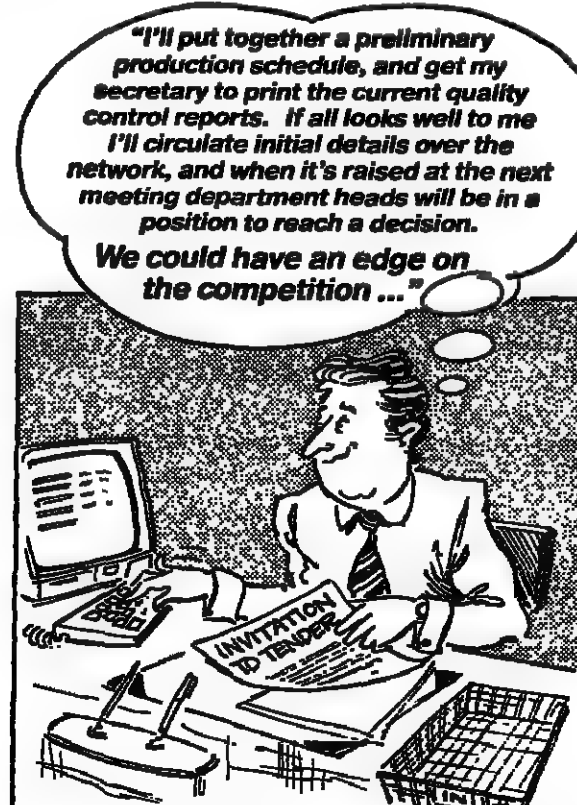
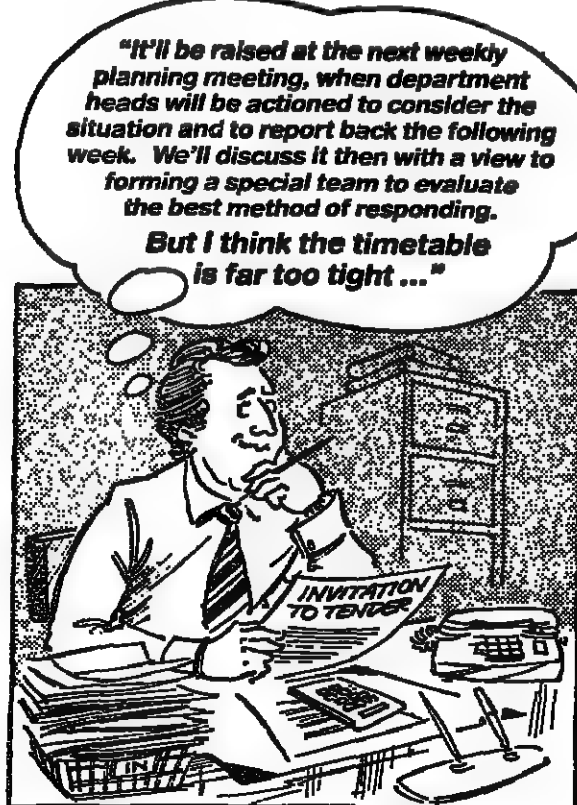
Michael Whitehead

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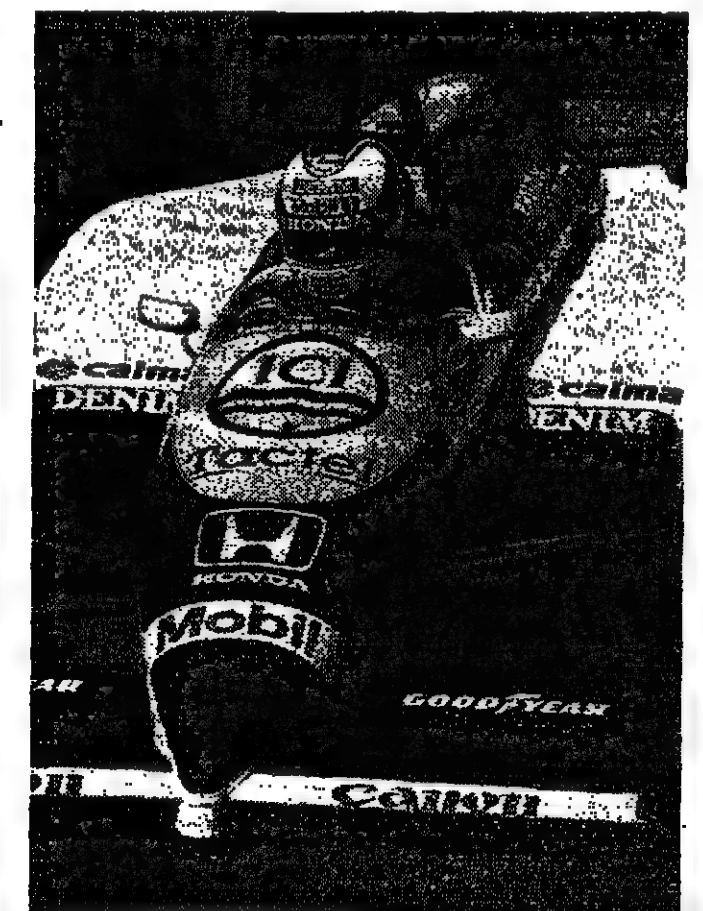
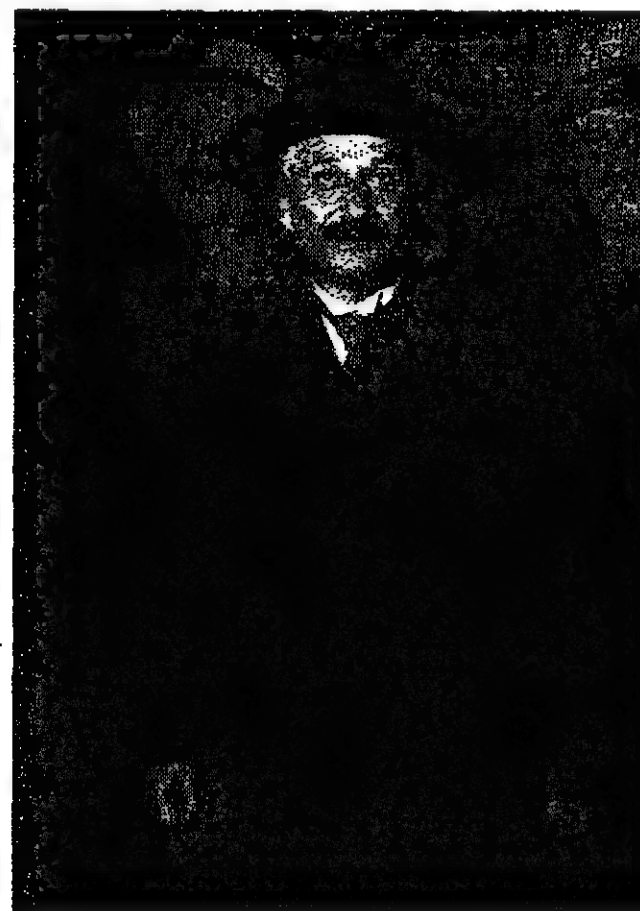


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GE computer software helps design Formula One cars for Grand Prix winners.

No wonder  
Albert Einstein once dropped in  
to see what we were up to.

Over the years, GE has attracted more than its fair share of brilliant thinkers.

One of these was Charles Steinmetz, the first person in the world to create lightning. Whilst the Old Thunderbolt, as he was known to his friends, was employed by GE he astounded the scientific world with his Laws of Hysteresis and Theory of Electrical Transients.

Visitors of a distinctly intellectual nature began to appear at his laboratory to pick up a few hints.

Not least of these was a young Albert Einstein who dropped in on Steinmetz in 1921, the year that the former received the Nobel Prize in physics.

The Old Thunderbolt could already tell that in theory his visitor's career was bound

to be relatively successful.

People are still dropping in on GE to see what they can learn. Recently the Williams-Honda Formula One racing team called in for help in designing their FW18 cars.

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Williams-Honda chose the GE option because the package offered a total solution backed by unbeatable hardware and software support.

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All of which would come as no surprise to Dr Steinmetz. Or Albert Einstein.

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April 1987

## Peugeot increases issue for foreigners

By Paul Betts in Paris

PEUGEOT increased its new equity issue yesterday by FF 200m (\$32.8m) to FF 2.875bn in response to strong demand from foreign investors.

The private car group decided to increase the foreign portion of its new share offering, launched yesterday, by 22.4 per cent by raising it to 642,287 shares from 524,620 shares.

Peugeot had said at the weekend that the foreign portion, representing about a third of the total capital increase, was five to six times oversubscribed.

The car group had originally planned to offer about 1.57m shares carrying warrants, enabling shareholders to subscribe to additional shares to raise FF 2.875bn in fresh equity to help strengthen the group's balance sheet. The overall equity issue was thus raised to 1.69m shares yesterday.

The foreign portion was initially intended to raise about FF 690m, but after yesterday's increase in the offering, it will amount to more than FF 1bn.

The new shares are being offered at FF 1,700 each and carry a premium of 11.5 per cent on the current Peugeot share price on the bourse, reflecting the value of the rights to subscribe to new shares attached with the new equity offering.

Peugeot, which recently reported a sharp rise in group profits to FF 3.5bn last year, has also announced a one-for-five scrip issue, the first free share distribution by the company since 1976.

## GERMAN BANK AIMS TO INCREASE PRESENCE IN BOND BUSINESS

# NordLB to open Frankfurt office

BY HANS SIMONIAN IN FRANKFURT

NORDDEUTSCHE LANDESBANK (NordLB), West Germany's ninth-largest bank and one of the country's biggest publicly-owned financial institutions, yesterday joined the growing list of West German regional banks opening securities offices in Frankfurt.

The operation is designed to further the Hannover-based bank's presence in the bond business. Mr Bernd Thiemann, chief executive, said NordLB would aggressively use the chances Frankfurt had to offer.

NordLB's decision is a further sign of the concentration of banking activity in Frankfurt, West Germany's financial capital.

Foreign banks - notably those in investment banking - have wasted little time in setting up in the city. Merrill Lynch, which already has a strong presence selling US equities to both institutional and private

clients here, last month said it would be applying for a full banking licence and hoped to start business before the end of the year.

By contrast, West German regional banks, which often have strong local attachments - notably to one of the country's eight regional bourses - have often been more reluctant to acknowledge Frankfurt's growing role - especially as a centre for securities trading.

However, a string of regional banks have recently announced plans to set up in Frankfurt.

Deutsche Städtische und Landesbank (DSL Bank), the government-owned financial institution which is now a universal bank in all but name, is establishing a 10-man Frankfurt bond trading operation.

The bank has hired Mr Jürgen Mann, formerly head of securities

trading at Morgan Guaranty Frankfurt, to head the new unit.

Bankhaus Lampe, the Bielefeld-based bank which is 25 per cent owned by Deutsche Genossenschaftsbank, is taking the same step.

The bank plans to open a 10-man branch in Frankfurt this autumn, with the emphasis on securities sales to institutional and private clients and on financial services, says Mr Christian von Bassewitz, one of its board members.

Going the same way is Marcard, Stein, the small Hamburg-based bank which is majority-owned by Banque Indosuez of France.

It is thinking hard about setting up a small satellite operation in Frankfurt for investment banking and "just to be seen," a senior executive said.

Finally, Vereins- und Westbank, also based in Hamburg, is due to

open a Frankfurt office here late this year. Staff will start taking up positions from August, and the new operation will give about equal weight to securities, "trans-regional" and international business, an official said.

Possibly most interesting in the longer term, however, are Bayerische Vereinsbank's plans. The Munich-based bank, which owns 23.3 per cent of Vereins- und Westbank, has assembled a piece of prime real estate on Frankfurt's Mainzer Landstrasse, which is fast becoming the city's main avenue for bank skyscrapers.

Bayerische Vereinsbank has no immediate plans to develop the site, the bank said, and even a partial move from its Bavarian base is unlikely in the short term. But many wonder whether its Frankfurt site can remain a tatty multi-storey car park for ever.

## Boeing to buy ARGOSystems

BY OUR FINANCIAL STAFF

BOEING, the US aerospace group, is expanding its presence in the military electronics market by acquiring ARGOSystems of Sunnyvale, California, in a \$275m agreed deal.

The merger will be carried out through a tender offer by a Boeing subsidiary of \$37 a share cash for all ARGOSystems' shares, the companies said.

ARGOSystems, meanwhile, has granted Boeing an option to buy 1.24m shares, or 18.3 per cent of the outstanding stock, for \$37 a share, and Mr Bill May, chairman of AR-

GOSystems, and three other officers have given Boeing an option to buy their shares, another 8.9 per cent of the outstanding stock, for the same price.

ARGOSystems makes equipment to monitor and analyse military communications signals, electronic warfare equipment to monitor and jam radar signals and signal processing systems.

For the nine months ended March 31 1987 it reported earnings more than doubled to \$8.3m, or 98 cents a share, from \$3.1m, or 48

cents. The year-ago period included a \$2.2m charge from a writedown of securities.

Sales rose 23.5 per cent to \$70.8m and are expected to exceed \$100m for the fiscal year ending June 30. It has about 1,200 employees.

Mr Frank Shrontz, Boeing president, said: "ARGOSystems is a clear leader in its field. This acquisition will expand our overall activities and significantly enhance our ability to compete in the defence electronics area."

## Holderbank sees 1987 earnings at record

By John Wicks in Zurich

HOLDERBANK, the world's largest cement group, expects its consolidated profits this year to reach at least the 1986 record level of Sfr 239m (\$159m).

Mr Max Ammann, managing director, said yesterday that 1987 group figures would show a marked rise in sales volume, with total capacity of about 43m tonnes.

The expected rise in sales is due largely to the consolidation for the first time of Ideal Basic Industries, its 4m-tonne US affiliate. This Denver-based company, which booked total losses of \$622m in 1982-86, is expected to return to profit this year.

Elsewhere, Holderbank increased its stake in Cementos Polpaico, the 800,000-tonne Chilean company, in Dundas Cement (USA), Cementos O'Higgins (Belgium) and Cementos Nacional (Ecuador).

Turnover should be at or above last year's Sfr 2.29bn, Holderbank said in Zurich. This, together with benefits such as cheaper coal and oil, should more than offset the "extremely negative currency factor."

The company is to pay increased dividends of Sfr 105 (1986: Sfr 80) per bearer share, Sfr 21 (1986: Sfr 16) per registered share and Sfr 10.50 for each of the new participation certificates for 1986, including a 3 per cent bonus.

## Degussa in 1985/86:

# Another Successful Year

### Net Income Up Again

Fiscal 1985/86 was another successful year for Degussa. Although the volume of sales was down somewhat, net income for the Group as a whole exceeded the level recorded for the previous year. The figure for Degussa AG, the parent company, remained unchanged. The decline in the value of the U.S. dollar made it more difficult for Degussa to maintain its share of foreign markets. As a consequence, sales decreased by 7.2% to DM 10.9 billion for the Group, and by 3.4% to DM 9.0 billion for the parent company.

### Record Investment Levels

Group investments in property, plant and equipment totaled DM 460 million, and DM 241 million for the parent company - both all-time highs. The majority of these funds - 64% - were invested in West Germany; for example, a new plant for the production of printed circuits was set up in Grassau, Bavaria. With the acquisition of a U.S. firm's European carbon black production facilities, Degussa enhanced its rank as one of the world's leading producers in this business.

### Mixed Performance Among Sectors

During the year, price developments on the precious metals markets diverged sharply: the DM quotations for gold and silver dropped, whereas those for platinum and palladium rose. Given this market environment, sales in the Metals Sector decreased by 9.4%; nonetheless, earnings were up on the already favorable results registered in 1984/85. Group sales in the Chemicals Sector declined slightly, while the parent company showed a modest increase; domestic sales in this sector rose by 5.1%, whereas foreign sales decreased by 2.6%. Overall, Chemicals Sector earnings remained at the previous year's level. Group sales in the Pharmaceuticals Sector grew by 1.2%, but earnings remained below those of 1984/85.

### Foreign Subsidiaries Successful

Belgian-based Degussa Antwerpen N.V. and Degussa s.a. of Brazil once again achieved good results. Degussa Corporation, USA, which had difficulties in 1984/85, closed the year under review with a profit.

New facilities for the manufacture of hydrogen peroxide and Ultraform - the latter a synthetic material to be produced in a joint venture with BASF - are nearing completion in Alabama.

### Emphasis on Research and Environmental Protection

Degussa, which has always placed a high priority on research, again increased research expenditure substantially, by 17.4% to DM 223 million, in the Chemicals Sector, outlays for development work on catalytic converters rose considerably, and the expansion of biotechnology research facilities proceeded according to schedule. Group expenditure for environmental protection climbed for the year by 11% to DM 146 million.

### Outlook

So far, the favorable trend of 1985/86 in the demand for Degussa products continued into the new business year. However, current demand levels may not be maintained throughout the year. The present exchange rate situation has given rise to uncertainty in some areas and, as global economic instability grows, so the threat of protectionist measures increases. However, given the scope of our investments and Degussa's competitive position in our principal areas of activity, as well as the steps we are taking to open up new markets for our products, we are fully confident that Degussa is well-equipped to meet the challenges of the future.

## Consolidated Balance Sheet as of 30th September 1986

ASSETS	DM million	LIABILITIES and SHAREHOLDERS' EQUITY	DM million
Property, plant and equipment, and intangibles	1,256	Issued capital stock	284
Investments in affiliated companies	275	Disclosed reserves	684
Other investments and long-term loans	108	Outside investors' minority interest in associated entities and negative differences from consolidation	58
Total fixed assets	1,639	Special reserves	124
Inventories	1,151	Allowance for bad debts	46
Cash and receivables	1,783	Liability reserves	1,122
Total current assets	2,934	Long-term liabilities	838
Total	4,573	Current liabilities	1,360
		Profit available for dividends	57
		Total	4,573

### Excerpts from the Consolidated Statement of Income

	DM million
Sales	10,872
Cost of raw materials, supplies and purchased merchandise	7,862
Wages, salaries and benefits	1,556
Depreciation	441
Taxes on income and property	188
Net income	115

For a copy of our 1985/86 Annual Review in English, please write to: Degussa AG, Abt. Öffentlichkeitsarbeit P.O. Box 11 05 33, D-6000 Frankfurt 11 Federal Republic of Germany

### Degussa Activities in Brief

Metals:	Chemicals:
• Precious Metals	• Industrial and Fine Chemicals
• Trading & Refining	• Inorganic Chemical Products
• Dental	• Organic Chemicals
• Technical Metal Products	• Pharmaceuticals
• Mining Technology and Durants	• "Homework" and "Aids" preparations for human medicine
• Primary Production	

Degussa Group (consolidated): Degussa AG and 14 domestic and 40 foreign companies 24,977 employees. Shareholders: over 40,000 Production units in Germany: 16 (parent company) Production units of subsidiaries in 20 countries

## STAYING IN HOLLAND?

To complete the needs of the business traveller, complimentary copies of the Financial Times are available to guests staying in the

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## The Kingdom of Belgium

— Floating Rate Notes Due January 2004 —

Notice is hereby given to the holders of the Floating Rate Notes that in accordance with the provisions of the Trust Agreement dated January 5, 1984 (Condition 6 (b) of the Floating Rate Notes), the issuer will redeem all the Notes on July 9, 1987 (together called the "Interest Payment Date" and the "Redemption Date") at their principal amount. Interest will be paid to the persons shown on the Register of Noteholders at the close of business on the fifth day prior to the interest payment date.

Payment of principal will be made on or after the redemption date at the specified office of the Transfer Agent or the Registrar listed below, upon presentation and surrender of the Notes. The Notes will become void unless presented for payment within a period of 10 years from the redemption date.

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## David Gardner on the banks' attempts to cut Latin American debt

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## Continued emphasis on quality in 1986



Another year of good results. Rise in long-term lending.

Helaba Frankfurt turned in another good performance in 1986. Expansion of quality services, satisfactory earnings, moderate growth and a further restructuring of the balance sheet highlighted the year.

Total assets rose by DM 1.9 billion to DM 68.9 billion. Business volume was up by 2.6% to 70.7 billion. Overall credit volume advanced to DM 52.8 billion, a growth of DM 1.2 billion. Long-term lending, however, increased by DM 1.8 billion, resulting in a further shift in the loan portfolio toward the long-term sector. Own bonds outstanding grew by DM 2.3 billion to DM 30.7 billion.

Owing principally to a decline in interest income - a general trend in recent years - and increased investments in personnel and technical equipment, earnings did not match the high level achieved the previous year. The good results in 1986 enabled the bank to strengthen again the reserves by DM 25 million - equity capital now stands at DM 1,366 - and to maintain its dividend.

Helaba Frankfurt is a government-backed regional universal bank concentrating on wholesale banking and medium to long-term lending. It acts as banker to the State of Hesse, and performs clearing functions for Hesse's 52 Sparkassen.

Financial Highlights DM million Dec. 31	1984	1985	1986
Business volume	68,622	68,941	70,735
Balance sheet total	66,391	66,928	68,879
Total credit volume	50,150	51,560	52,788
Short-term assets	18,224	17,692	17,257
Due from banks	12,631	11,985	11,995
Due from customers	6,080	5,593	5,262
Long-term loans	28,978	29,986	31,796
Loans to banks	4,425	4,835	6,115
Loans to customers	24,553	25,151	25,683
Short-term liabilities	18,953	18,072	17,194
Long-term liabilities	4,976	4,595	4,840
Bonds issued	27,317	28,385	30,712
Capital and reserves	1,316	1,341	1,366
Net income	50	51	51

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## INTL. COMPANIES and FINANCE

### NZ carpet group in US acquisition

BY DAI HAYWARD IN WELLINGTON

FELTEX INTERNATIONAL, New Zealand's largest carpet maker, has paid NZ\$175m (US\$100.8m) for 94.4 per cent of Allsteel, a privately owned Chicago commercial furniture manufacturer. It is one of the biggest overseas deals ever made by a New Zealand manufacturing company.

Allsteel had sales equivalent to more than NZ\$350m last year. It operates production plants in three US cities, and its larger than Feltex which has combined New Zealand and Australian sales of NZ\$245m.

The Chicago company is ranked as one of the top six

makers of commercial and systems furniture in North America. Its acquisition means Feltex will now operate across four countries with half its assets in New Zealand, 34 per cent in Australia and 16 per cent in the US and Canada.

Feltex sees the acquisition of the American furniture maker as fitting neatly into its current operations, particularly its carpet distribution operation based in Los Angeles and an underlay outlet in San Francisco.

Mr Peter Stanes, managing director, says Feltex will use the Allsteel base to seek further

opportunities for expanding in the US.

The acquisition of Allsteel came after an extensive investigation of the North American market for a suitable venture. The 94.4 per cent stake was bought from a group of investors - the remainder is held by employees of Allsteel.

Mr Stanes says Allsteel has a strong profit record and Feltex plans to expand this to provide benefits in US dollars for Feltex and its shareholders.

The New Zealand company financed the deal by arranging a facility on the US commercial paper market through Security

Pacific NZ, its merchant bank. Normally the US commercial paper market is closed to non-resident companies of the size of Feltex but Security Pacific structured a facility giving Feltex access to the market by carrying a Security Pacific credit rating.

It is understood the deal meant a considerable saving to Feltex in interest charges compared with if the finance had been raised in the Euro market. Over the past few years Feltex has been expanding within New Zealand buying up local furniture manufacturers and a steel furniture maker.

### Equiticorp buys Midland offshoot

BY CHRIS SHERWELL IN SYDNEY

EQUICORP Australia, the wholly-owned banking subsidiary of New Zealand's Equiticorp Holdings, yesterday announced the purchase of a Sydney finance company half-owned by Midland International Australia, part of the Midland Bank group of the UK.

The announcement coincided with the separate revelation that Equiticorp Tasman, Equiticorp's Australian investment arm, has further stepped up its holding in Monier, the building products group, to 14.9 per cent, the maximum allowable.

Monier, which is 49.9 per cent owned by Redland of the UK, is currently the subject of a takeover bid by CSR, the Australian sugar, building materials and resources group.

Redland is supporting the bid.

Equiticorp Tasman's motives

in building up the Monier stake remain a mystery, especially as Redland is so close to full control. Equiticorp indicated that some announcement would be coming later in the week.

Equiticorp Australia's purchase of the finance company, called Associated Midland, was for an undisclosed sum and remains subject to regulatory approval.

The target company was formed in 1984 as a 50-50 joint venture between Midland International Australia and the State Bank of Victoria. It emerged from Midland Bank's purchase of Associated Securities Finance in 1979.

According to Mr David Adams, managing director of Equiticorp Australia, its name will now change and the combined asset base of the two

companies will be A\$1bn (US\$712.3m).

Equiticorp Holdings, headed by New Zealand entrepreneur Mr Allan Hawkins, recently made its presence felt in the City of London with a \$83m swoop on merchant bank Guinness Peat which netted a 25.5 per cent stake.

Bankers Goldfields Consolidated and City Resources, an Australian explorer, are planning a joint venture to re-examine the Bulolo alluvial gold field in Papua New Guinea.

The Bulolo fields were among the biggest sources of gold in Papua New Guinea before the Second World War.

Renison has a small operation close by at Edie, near the town of Wau, where it is expanding output from 12,000 ounces a year to 25,000 ounces.

### Bank of New Zealand ahead

By Our Wellington Correspondent

BANK of New Zealand, the leading commercial bank which recently made a minority share flotation, has recorded net profits of NZ\$148.5m (US\$85.5m) for the year to March, up nearly 50 per cent from the previous NZ\$100.6m.

Extraordinary items added a further NZ\$1.9m making a total profit of NZ\$150.5m against NZ\$103.1m. Tax was NZ\$120m compared with NZ\$105.6m.

Mr Ron Enderby, the new chairman, said the result confirmed the bank's ability to achieve strong growth in both business and profitability. BNZ was in a particularly strong financial position to meet the challenge of new entrants to banking when licences are issued by the Government.

### Baker & McKenzie takes over Taiwan law firm

BY BOB KING IN TAIPEI

BAKER & MCKENZIE, one of the world's largest law firms, has effectively taken over Taiwan's Tseng Tsai, Chen and Yang, one of Taipei's oldest law partnerships - a move which they say will put both firms on a better track to capitalise on Taiwan's accelerating economic and political development.

As a result of the link-up, the Taiwan firm's attorneys become partners in what is now Baker & McKenzie (Taiwan).

The move should prove equally beneficial to both parties. Under Taiwan law, barristers or, in fact, anyone offering legal advice or opinions here must have passed Taiwan's bar examinations. Thus, Baker

& McKenzie will be able to draw from the Taiwan firm's pool of eight attorneys in local legal matters. This will become increasingly important, as more international companies seek to invest in Taiwan.

The partnership will also provide Taiwanese clients with legal representation abroad through Baker & McKenzie's 34 offices around the world.

Mr David Yang, a professor of law as well as a senior partner in the Taiwan firm, calls the merger "quite natural" in view of Taiwan's growing economic and financial importance. The country has, over the past year, begun a sweeping programme of reforms that has attracted the attention of foreign investors.

### Toshiba sees rise despite ban on Soviet sales

BY OUR TOKYO STAFF

TOSHIBA, the Japanese electronics group, expects to boost consolidated net profits by 11 per cent in its current year to 288bn (438.9m) despite what it acknowledges will be adverse effects from its infringement of rules governing technology sales to the Soviet Union.

At the very least, a one-year ban imposed by the Japanese Government last month on exports to the communist bloc by its half-owned Toshiba Machine subsidiary would cut more than 7,000m from net profits of the group as a whole.

Toshiba Corporation official said. He was uncertain about the overall adverse effect of the ban, which involved the illegal export of advanced machine tools to the Soviet Union. The US Department of Defense

has cancelled a plan to purchase 90,000 lap-top computers from Toshiba.

Toshiba and its group companies yesterday reported a substantial fall in net profits in the latest year to March, down 42.5 per cent to 234.18bn. The year's steep appreciation and lower prices of semiconductor chips were the main factors.

Sales fell 1.9 per cent to 23,307.5bn, the first decline in 31 years. It expects a 6 per cent recovery this year.

Heavy electrical appliances were stable at 36 per cent of turnover. Sales of industrial electronics and components were components were up at 36 per cent. Consumer products weakened, taking a 31 per cent share.

### Japanese city bank profits jump by 40%

BY YOKO SHIBATA IN TOKYO

JAPAN'S 13 city, or commercial, banks showed an average 39.9 per cent jump in pre-tax profits for the year to March, with Fuji Bank recapturing the top earner position for the first time in six years.

Their total revenues dipped 1 per cent to ¥16,121.5bn (\$111.96bn) but declines in funding costs and in other expenses outweighed this. Operating profits, excluding gains made in securities transactions, soared 49.1 per cent to ¥1,527bn.

Total deposits at the term-end stood at ¥216,925.5bn, up 15 per cent from the previous year, reflecting the banks' aggressive lending push aimed at medium and small companies which previously drew predominantly from regional and smaller banks. This offset sluggish loan demand from major corporate borrowers.

The 13 also stepped up their fund procurement through

#### JAPANESE COMMERCIAL BANKS

Percent company results, year to March 1987

Parent company results, year to March 1987						
	Revenues	%	Pre-tax	%	Net	%
	Ybn	change	profits	change	profits	change
	Ybn		Ybn		Ybn	
Daiichi Kangyo	2,051.75	-1.1	265.91	+46	99.18	+41.3
Sumitomo	1,921.19	+2.4	181.13	+52.3	57.41	+29.9
Fuji	1,843.5	-1.9	218.9	+41.8	101.85	+40.2
Mitsubishi	1,725.83	+0.9	194.09	+52.4	93.58	+32.8
Sanwa	1,481.23	-2.0	180.19	+39.6	92.34	+35.2
Total	1,220.05	-0.2	182.68	+40.1	43.46	+32.5
Mitsui	1,239.74	+8.3	144.78	+115.3	50.72	+38.2
Taiyo Kobe	1,013.42	-1.6	73.53	+31	31.14	+40.2
Kyowa	460.27	+8.3	59.99	+30.3	27.04	+41.7
Daiwa	433.75	-5.0	55.01	+6.1	27.09	+53.4
Saitama	367.67	-4.0	49.46	+22.5	22.25	+33.1
Hokkaido T.	541.12	+4.5	32.22	+40.3	13.78	+24.4
Tokai	1,020.69	-10.0	81.97	+14.0	47.13	+20.4

floating-rate instruments such as certificates of deposit, money market certificates and particularly large denomination deposits. In a period of declining interest rates, the shift to

money market instruments meant a widened interest spread as funding costs declined ahead of lending rates.

The banks stepped up their dealings in government bonds

which generated dealing profits of ¥185.9bn, up 1.8 times from the previous year. Sumitomo Bank reaped 16 per cent of its pre-tax profits from dealing in bonds while Fuji earned 10.8 per cent of its pre-tax earnings from foreign exchange dealings.

Following their hefty losses on perpetual floating-rate notes, Sumitomo Bank - which had been said to hold the largest amount of perpetual FRNs - was the only bank to write down the whole amount of its holdings of the notes. The others are still carrying them on their books.

Fuji Bank ranked first in all three profit categories - pre-tax, operating and net. Sumitomo Bank, which had been at the top for several years, slipped into fourth place, chiefly because of large expenses related to its acquisition of the financially troubled Daiwa Sogo Bank last October.

NEW ISSUE

These Notes having been sold, this announcement appears as a matter of record only.

MAY, 1987



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### ECHO BAY MINES

New Issue / May, 1987

**1,600,000 Shares**

**Echo Bay Mines Ltd.**

**Common Shares**  
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Salomon Brothers Inc

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Burns Fry and Timmins Inc.

Wood Gundy Corp.

All of these securities having been sold, this announcement appears as a matter of record only.



## UK COMPANY NEWS

## Allied Lyons is planning Hiram Walker disposals

Allied Lyons yesterday began a tour for investors and analysts around Hiram Walker, the Canadian drinks business it bought a minority stake in last year, with news of possible sales of non-core businesses which could raise about £100m. (NO. 15-8/87)

The interests, all non-alcoholic beverages operations, have been identified as likely disposals already and are expected to be sold in the next year to 18 months.

Another big possible windfall is the disposal of surplus Canadian whisky stocks and cognac stocks in France.

These are likely to be reduced during the next three years or so and raise around further £50m.

News of the sales was given yesterday afternoon by Mr

David Beatty, Hiram Walker Senior Executive vice-president.

Speaking after presentations at the group's Ballantine whisky offshoot in Scotland, he confirmed that there had been a big recovery in both sales and profits at the Hiram business over the past few months.

Volume figures for the six months trading to the end of April showed an overall increase of some 5 per cent. This almost completely wiped out a setback seen over the previous six month period to leave the 12 months figure to April down by 0.5 per cent. Key sales figures for the second six months saw Canadian Club increase 10 per cent, Kahuna, its coffee liqueur 19 per cent, Ballantines by 12 per cent and the Tia Maria brand unchanged.

Spelling out the group's

future plans, Mr Beatty told today's gathering that they were expecting a significant profit improvement during the current financial year.

The fact was being taken out of overheads, they were managing their assets more successfully, planning to dispose of non core businesses and reducing stocks, he added.

One of the key goals was to take the Ballantines brand up from number three worldwide to number two, overtaking J. and B. Rare, before the end of the decade.

"We are looking for sales by then of over 5m cases a year to move us into that slot," said Mr Beatty.

The Allied-Lyons presentation will see the group taking the analysts and investors by Concordia to Canada, New York and then France.

## Guinness sells Clares Equipment for £28.5m

Guinness, the troubled drinks group, yesterday unveiled the first fruits of its new policy of divesting non-core businesses—the sale for £28.5m of Clares Equipment, a manufacturer and supplier of shopping equipment, in a management buy-out.

The policy of concentrating on the group's core brewing and spirits businesses was announced at the start of April by Mr Anthony Tennant, the new chief executive, a few weeks after he took the place of Mr Ernest Saunders.

Guinness has also put up for sale its principal retailing activities, including Martin the Newsagent.

Clares, which has a turnover of about £35m and employs some 650 people at three sites, makes and supplies display and merchandising equipment to UK supermarket chains and multiple retailers. It was acquired by Guinness in 1978. Its chairman and managing director is Mr Roy Griffiths.

Equity and senior debt financing were arranged by two units of Security Pacific, the US banking group. Its new London-based acquisition finance group arranged and acted as agent for the £28.5m debt portion of the deal, with Security Pacific Moore Goveatt Equity Ventures leading and arranging the £10m equity and mezzanine financing. County Development Capital was co-investor.

Riley rejects Charwood proposals

Riley Leisure, the smoker group, said yesterday that proposals advanced by privately-owned Charwood Leisure to help Riley escape a £16.4m bid from Midsummer Leisure were not acceptable.

It would, however, hold further discussions with Charwood, which operates 24 smoker clubs in London. Charwood on Friday suggested a reverse takeover of Riley to bring its own management into the leading UK maker of smoker tables and operator of 66 clubs. The takeover would take the form of an issue of between 18m and 20m Riley shares to Charwood.

This followed the Riley board's reluctant, and split, recommendation of the offer from Midsummer, the pub, disco and shopping group. Mr Adam Page, Midsummer chairman, was pleased last night with Riley's decision.

Neotronics off to a good start

Dealings in the shares of Neotronics got off to a good start yesterday, rising from the placing price of 150p to a peak of 175p before closing at 165p.

The Bishop's Stortford-based gas leak detection equipment manufacturer saw up to 7m of its shares change hands yesterday—which compares with the 6m, a quarter of the total, placed with institutions by brokers Moore Goveatt.

At the closing price Neotronics is valued at just under £40m.

London Intl sale

London International is selling its portfolio businesses to Magnum Group for a total £3.54m. The businesses made profits of £501,000 pre-tax on turnover of £5.95m in the year to the end of March 1986, when net assets totalled £1.03m.

Magnum has been formed by a group of portfolio managers led by Mr Richard Seymour, general manager.

## Plessey achieves £184 million pre-tax profits

"A good performance which has achieved results in line with target for the year under review."

Sir John Clark, Chairman and Chief Executive

## 1986-87 Preliminary results

An extract from The Plessey Company's unaudited consolidated results

	53 weeks ended 3 April 1987 £ million	52 weeks ended 28 March 1986 £ million
Turnover	1,429.7	1,461.1
Operating profit	166.2	162.5
Profit before taxation	184.2	170.2
Earnings per share (Before extraordinary items)	16.22p	13.49p

If approved at the Annual General Meeting on Thursday, July 16, 1987, the proposed final dividend of 3.407p per share will be paid on November 2, 1987. This dividend, together with the interim dividend already declared, will amount to a total dividend for the year of 5.790p per share.

Copies of the full Report and Accounts for 1986-87 will be posted to shareholders on June 22, 1987.

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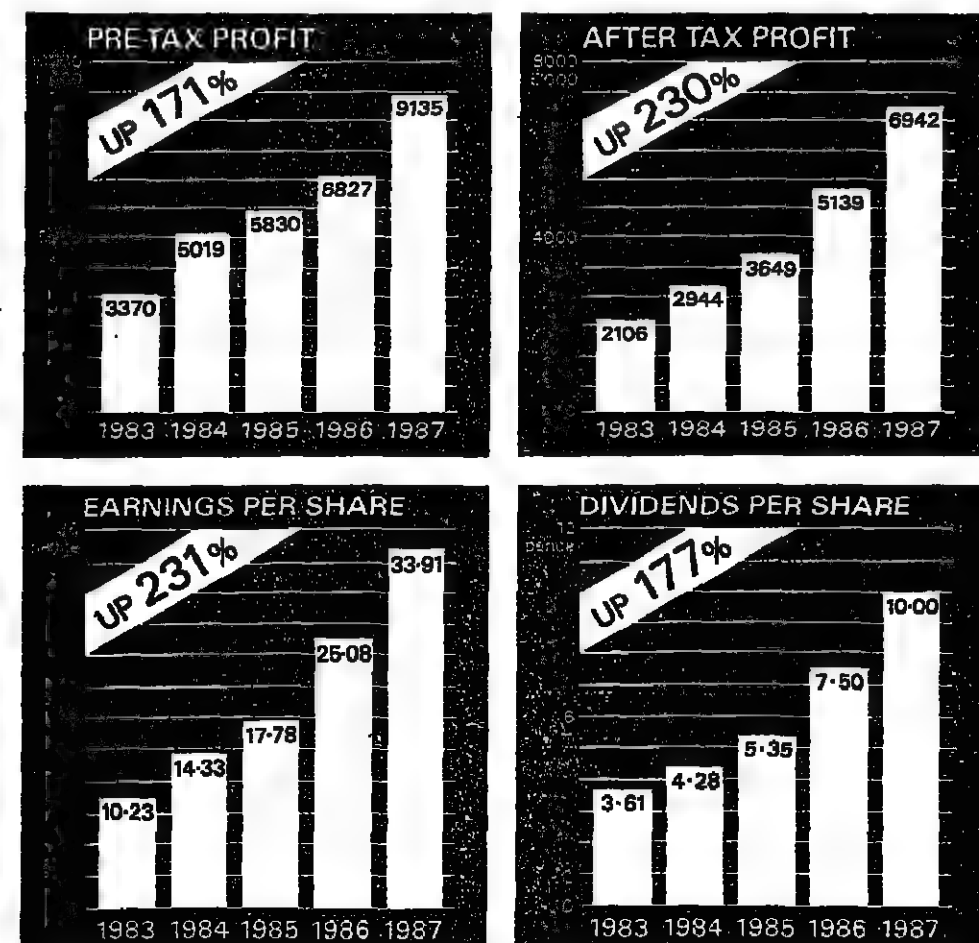
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## Tranwood and Ifincorp Earl at advanced stage in merger talks

BY ALICE HAWSTHORN

MR. NICK OPPENHEIM'S Tranwood and Mr. Peter Earl's Ifincorp, Earl — which collectively have been involved with three unsuccessful takeover bids — yesterday confirmed that merger discussions are at an advanced stage.

When the merger is completed Tranwood, which failed in its attempt to takeover Altkon House last year, plans to use Ifincorp, Earl as the basis for a large financial services group. It is also thought to be finalising negotiations to acquire an agency broker.

Mr. Oppenheim has been scouting about for an acquisition opportunity within financial services ever since he became chairman of Tranwood, in a £1.5m remuneration package, early last year.

He stressed yesterday that the deal would be "a genuine merger, rather than an acquisition." After completion several Ifincorp, Earl directors, including Mr. Earl, are expected to assume executive roles on the board.



Nicholas Oppenheim, Chairman of Tranwood

Ifincorp, Earl was formed in early 1985 by Mr. Earl, who is its chief executive, and Ifincorp, Earl a Luxembourg venture capital concern. It has since built up a corporate finance portfolio of 25 clients, but is best known for its role in assembling the Demerger One and Demerger Two consortia which have staged unsuccessful takeover bids for Ertel and London and Northern respectively.

Mr. Earl said that the merger offered an opportunity to accelerate the company's expansion. "Tranwood has clearly come to the same conclusion that in the Big Bang world there is a real role for financial services groups with no conflicts of interest," he said.

Once the merger, and subsequent acquisitions, are completed, Tranwood should function as a broadly based financial services group. It is also still involved with the company's original business of hosiery manufacture.

Mr. Oppenheim said that the merger, which would involve the transfer of shares, was "highly complex and very delicate." He hopes to conclude negotiations by the end of the week.

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## COMPANY NEWS IN BRIEF

SIMON ENGINEERING is selling its South African subsidiary, Simon Holdings (Pty) to a consortium of local managers and directors, ERM Treasury and The South African Reserve Bank have given their approvals to the transaction.

LONDON AND MANCHESTER Group has agreed to acquire Friend and Falcke, estate agent. Consideration includes an initial £3.77m. Additional amounts would be based on 5.2 times annual increase in net profit achieved in each of four years beginning April 1987 subject to a maximum level of increase of £150,000 in any one year. Initial payment comprises part cash and part LMG ordinary to be held in escrow against performance criteria specified in the contract. Further payments will be settled in LMG 25p ordinary.

NESTAIR has acquired Premier Recruitment Services, an employment agency based in Nottingham for £650,000. Of the sum £520,000 is in cash and £130,000 is satisfied by the issue of 44,531 ordinary shares in Nestair. The estimated going profitability of Premier is £150,000 pre-tax per annum on a turnover of £55,000.

PRUDENTIAL PROPERTY Services, a subsidiary of Prudential Corporation, has acquired the Brighton estate agency of George White for an undisclosed sum which is partly in cash and partly in shares, but the total is not material to the corporation's balance sheet.

CEMENTATION-SAUR Water Services, jointly owned by Trafalgar House and diversified French construction group Bouygues, has acquired £188,000 nominal 5.5 per cent (formerly 5 per cent) consolidated ordinary stock of Rickmansworth Water Company (22.29 per cent of the issued stock of that class).

BRIEF

Public Works Loan Board rates

Years	by EPT	A4	Non-quota loans A <sup>1</sup> repaid	by EPT	A4	Non-quota loans A <sup>1</sup> repaid
Over 1, up to 2	9	9	9	10	10	9
Over 2, up to 3	9	9	9	10	10	9
Over 3, up to 4	9	9	9	10	10	9
Over 4, up to 5	9	9	9	10	10	9
Over 5, up to 6	9	9	9	10	10	9
Over 6, up to 7	9	9	9	10	10	9
Over 7, up to 8	9	9	9	10	10	9
Over 8, up to 9	9	9	9	10	10	9
Over 9, up to 10	9	9	9	10	10	9
Over 10, up to 15	9	9	9	10	10	9
Over 15, up to 25	9	9	9	10	10	9
Over 25	9	9	9	10	10	9

\* Non-quota loans B are 1 per cent higher in each case than non-quota loans A. † Equal instalments of principal. ‡ Repayment by half-yearly annuity (fixed equal half-yearly payments to include principal and interest). § With half-yearly payments of interest only.

## Macarthy buys Natures' Store for £1.7m

Macarthy, the pharmaceutical group, has acquired Natures' Store Ltd, a wholesale health-foods supplier, for up to £1.7m in shares and cash.

Natures' Store serves the South of England from depots at Avonmouth and Redruth, where it also operates a health-food packaging facility.

Some £1.6m of the consideration is being met with the issue of Macarthy shares, £300,000 on completion, £1m in March 1988 — subject to possible reductions after preparation of a completion balance sheet — and the remaining £300,000 four years after completion. Macarthy will pay £100,000 for the redeemable preference shares on completion.

## J. Menzies sales up

Mr John Menzies, chairman of John Menzies, stationer and newsagent, told shareholders at the annual meeting that sales for the first quarter were 9 per cent ahead of last year and were on budget. The budget for the full year indicated a further useful increase in profits and he saw no reason why this could not be achieved.

## BANCO NACIONAL DE COMERCIO EXTERIOR, S.A. MEXICO, S.A.

US\$50,000,000 FLOATING RATE NOTES for the six-month period from 21 May 1987 to 22 May 1988. The notes are issued at 101% of face value and will be repaid at 101% of face value on 22 May 1988. The interest rate is 10% per annum, payable semi-annually on 21 May 1987 and 22 May 1988.

## GRANVILLE SPONSORED SECURITIES

High Low	Company	Price	Change	div. (p)	%	P/E
181 133	Ass. Brit. Ind. Ordinary	180	—	7.3	4.8	9.8
163 145	Ass. Brit. Ind. CULS	163	—	10.0	8.1	—
38 34	Armstrong and Rhodes	38	—	4.2	11.7	5.0
80 67	BBS Design Group (USM)	76	—	1.4	1.8	18.1
238 215	Bardon Hill Group	228	—	4.8	1.9	27.0
155 95	Bray Technologies	155p	—	4.7	3.0	12.4
185 130	CCL Group Ordinary	165p	—	11.5	7.4	4.0
110 98	CCL Group 11p Conv. Pref.	110	+4	18.7	14.3	—
142 138	Carborundum Ordinary	142p	—	5.4	3.8	12.3
94 91	Carborundum 7.5p Pref.	94	—	10.7	11.4	—
100 87	George Blair	100	—	3.7	3.7	2.6
143 118	Iale Group	120	—	—	—	—
130 119	Jackson Group	130	+1	6.1	4.7	8.8
376 321	James Burrough	376	+3	17.0	4.5	10.8
94 86	James Burrough Spc Pref.	94	—	12.9	13.7	—
780 530	Multihouse NV (AmstSE)	530p	—	—	—	21.0
422 381	Record Ridgway Ordinary	422	+2	1.4	—	8.5
88 83	Record Ridgway 10p Pref.	88	—	14.1	16.4	—
91 80	Robert Jenkins	80	—	—	—	3.5
98 42	Scruttons	98	—	—	—	—
264 241	Tendley and Griffiths	264p	+2	8.0	4.0	7.8
348 321	Travel Holdings	348	—	7.8	2.3	7.2
102 73	Unilever Holdings (SE)	102	—	2.8	2.7	16.8
150 115	Water Alexander	150	—	10.0	3.3	14.4
185 180	W. S. Yeates	185p	—	17.0	8.8	19.5
118 98	West Yorks. Ind. Hosp. (USM)	108	—	5.5	5.2	17.1

Granville & Company Limited  
8 Lovat Lane, London EC3R 8BP  
Telephone 01-621 1212  
Member of FIMERA

Granville Davis Coleman Limited  
27 Lovat Lane, London EC3R 8DT  
Telephone 01-621 1212  
Member of the Stock Exchange

## SHERATON SECURITIES INTERNATIONAL PLC

- Profits double.
- Dividends increase 50%.
- Company firmly set for increased growth in profits.

FINANCIAL HIGHLIGHTS	
Year to 31st March	1987
Rental income	1,347
Property sales and fees	19,719
Profit before taxation	4,650
Earnings per share	3.5p
Dividends per share	1.125p

For copies of the Chairman's Statement and the Report and Accounts write to the Financial Director SHERATON SECURITIES INTERNATIONAL PLC 77 SOUTH AUDLEY STREET LONDON W1R 5TA



## UK COMPANY NEWS

Clay Harris on Valor's £285m purchase of Yale Securities

## The unlocking of a brave new world

MR MICHAEL MONTAGUE is unlocking a brave new world for Valor with the \$460m (£285m) acquisition of Yale Securities and NuTone unveiled yesterday.

The purchase, from Canadian-owned First City Industries, will quadruple the size of the UK gas and electrical appliances group at a stroke.

It will promote Valor, which has a market capitalisation of less than £100m and annual sales of £130m, into an entirely new league, where most of its matches will be played on foreign fields.

The June wedding of Yale and Valor, as the new group will be called, will also provide new international prominence and a US distribution system for the UK company's own products, especially gas fires.

Even so they have a long way to go to match Yale, almost a generic synonym for rimlocks, or even the local reputation of NuTone, the name that pops into mind when Americans think of centrally installed vacuum-cleaning units or built-in hairdryers.

"I regard Yale as a sleeping beauty," the inimitable Mr Montague said yesterday. "We hope Valor's tender touch will lift it gently from its slumbers." For its part, NuTone would bring a new range of household products to Britain.

Both fit in with his vision of a future of secure, but comfortable houses: "I think it's perfectly reasonable to think of a day when one key will lock every window, every door in the house."

The deal, clinched on Saturday morning in New York, followed months of negotiations which started when Mr Montague first approached First City Industries, the US manufacturing investment vehicle of the Canadian Bellberg brothers. Mr Montague had been confident of a successful outcome



Valor's American team holding the key to a new international market in home security. From left: Chris Jacob, vice-president finance, of Yale and NuTone; James Rankin, president of Yale; Paul Eckersley, vice-president finance and development Yale and NuTone, and Mr Bob Olney, chairman of Yale and NuTone.

for more than a month, asking the Stock Exchange to suspend Valor shares on April 29. Valor and its advisers have spent weeks examining the books of the two companies.

"There are no skeletons in the cupboard," Mr Montague said yesterday. First City, nevertheless, has signed a contract to indemnify Valor if any came to light.

Mr Montague said that both companies needed "an extra little touch on the tiller." The Yale and NuTone presidents agreed that their operations were likely to perform better under an industrially-motivated management than they had under First City.

Both have had to bear much higher interest charges since First City funded the acquisition of their parent company, NuTone, with the issue of "junk bonds" yielding more than 14 per cent.

In 1985 and 1986, these payments amounted to the lion's share of total interest charges of \$5.2m at Yale and \$4.5m at NuTone, the total operating profits for the two years were \$32.1m and \$52.1m respectively.

## STRONG GAS APPLIANCE SALES BEHIND PROFITS BOOST

VALOR increased pre-tax profits by 30 per cent to £10.53m (£8.08m) in the year to March 31, writes Clay Harris. Sales increased by 7 per cent to £129.1m (£120.6m).

It benefited from strong sales of gas appliances, as well as an important profit contribution from electrical products, according to Mr Michael Montague, chairman.

A higher charge of £3.54m (£2.25m) limited the advance after tax to 20 per cent. Earnings per share increased from 22.5p to 24.5p.

Valor plans a final dividend of 4.24p (3.76p) to make a total of £5.76p (5.12p), a 12.5 per cent rise on the year.

The company took nearly £1.25m (£1.44m) in extraordinary charges, resulting in a fall in attributable profit from £5.7m to £5.78m.

The largest (£732,000) reflected the final after-tax loss relating to Yale Circle, its former subsidiary engaged in the direct selling of kitchens. This operation, described yesterday by Mr Montague as an "ignoble venture," was put into liquidation in January.

The remaining £517,000 extraordinary loss arose from the repatriation of funds after the sale of South African interests.

Mr Montague said that prospects were "resplendent" because of the acquisition announced yesterday and the growth of UK consumer confidence as a result of a continued increase in disposable incomes.

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See Lex

## OSI's stake in OEM-shares suspended

Overseas Strategic Investments has increased its holding in Office and Electronic Machines, the typewriter service and distribution company, to 572,500 shares, or 9.35 per cent of the company's equity, it was announced yesterday.

Meanwhile, shares in OEM were suspended yesterday morning at 231p, valuing the company at £11.1m, pending a further announcement.

No one was available at OEM to give reasons for the suspension, which was at the company's request. Nor would OEM comment on the stake built up by OSI. It is not known whether the two events are connected.

The identity of OSI is unknown. Mr Harry Solomon, chairman of Hilldown Holdings, which has a 14 per cent stake in OEM, said that he did not know who was behind OSI, and had not been approached by them.

Eng. & Int. Trust Net asset value per share of English and International Trust rose 34.4 per cent from 195p to 263.6p during the year to April 5 1987. The dividend goes up from 3.55p to 4.25p with a proposed final of 3.35p.

Gross income was £2.96m (£1.96m) expenditure on interest took £961,000 (£797,000) leaving pre-tax revenue at £1.99m (£1.16m). Tax deducted was £460,000 (£322,000) leaving earnings of 4.34p (3.57p) per 25p ordinary.

Lamont ahead Lamont Holdings has started the present year ahead of last year, Sir Desmond Lorimer, chairman, told the annual meeting, and he expected the result for the year would show a continuation of the growth of recent years. Pre-tax profits for 1986 rose 34 per cent to £6.2m.

## Carlton Communications boost interim profits to over £13m

Carlton Communications, television and photographic production facilities group, boosted taxable profits by 85 per cent in the half year ended March 31 1987 to £13.32m. This compares with £8.2m previously, and was on turnover ahead by 48 per cent at £40.33m, against £27.33m.

Mr Michael Green, chairman and chief executive, said the company had experienced significant growth in the last six months both through the expansion of existing operations, and the strategic acquisition of interests closely related to its business.

He pointed out that over 80 per cent of the group's revenues and earnings were generated within the television industry worldwide.

The US accounted for half of the world television market and "Carlton now has a strong presence in New York, Los Angeles and San Francisco," the chairman stated.

The group had progressed into mainstream British broadcasting through its purchase of 20 per cent of Central TV, the largest ITV contractor, and Mr

Green said it was the group's aim to become a fully integrated communications company.

The chairman added that while the group was committed to investing substantial sums in research and development full year results would benefit from a significant level of investment in new products and services and a record order book.

Profits for the six months were subject to tax of £4.66m, compared with £2.57m leaving an attributable balance sheet from £5.33m to £8.66m, or 27.3p (19.23p) per 5p share.

The interim dividend, which will absorb £1.28m (£783,000), is boosted from 2.6p to 3.5p. Also proposed is a one for one scrip issue.

Mr Green said the television products division had made excellent progress during the half year with two products launched successfully at NAB in Dallas, Texas, and shipments of established products continuing at an encouraging rate.

comment Carlton has made a habit of delighting investors in its brief

stock-market career, and its growth shows no sign of abating with yet another set of resplendent figures. Behind the large increases in profits, turnover and earnings per share lies organic growth in the core businesses—not contributions from Comella or the recently acquired stake in Central TV.

Demand for Abekas's special effects hardware has been high, and TV companies have been flocking to the Moving Picture Company, where the reputation for quality at other facilities houses has meant the prices acquired with the takeover.

That put the shares on a prospective p/e of 25, a deservedly premium rating. Whether the shares will go higher to the short term depends on what Mr Green finds to do with the £30-£50m cash sitting in the balance sheet. Long term, the government's commitment to opening up the airwaves to independent producers is unreservedly good news.

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## Dares Estates calls for £35m

By Terry Povey

Dares Estates is to raise £34.7m through a two-for-five rights issue at 35p and an issue of a £15m debenture to refinance existing debt following a series of property acquisitions.

In mid-March, Dares raised £12.9m to finance the acquisition of five commercial properties in London. Since then it has acquired for £2.1m a further 25 per cent stake in Chelsea Cloisters, one of London's largest residential developments; purchased properties in Heddon Street, Westminster for £12.36m; and realised £5.575m from the disposal of properties.

After severe losses in 1984, Dares was reconstructed by its present board from a net asset base of £3.5m. Asset sales plus a rights issue were required in 1985 to enable the company to survive.

At the end of 1986, net assets were £12.4m, and for the year pre-tax profits of £747,000 (£12,000) were reported. The £12.9m acquisition in March took net assets up to £16.3m.

In a statement Dares said that it now was "revitalised," it had "many opportunities for expansion" and therefore wants to restructure its capital, free short-term facilities and finance the Heddon Street acquisition.

The rights issue will involve 98,82m new shares, raising £19.8m after expenses. Alongside this, Dares is to raise £14.85m through the issue of £15m worth of 10.25 per cent debenture stock 2012 secured on £25m worth of commercial properties.

After the fund raising and the acquisitions, the company's net assets will be £46m.

## United bid closes

United Newspapers, which this afternoon reaches the first closing date of its takeover bid for Eitel, the information group, has increased its 28.9 per cent interest in Eitel's share capital.

## Dowty in £36m polymer engineering expansion

BY PHILIP COGGAN

Dowty, the engineering group, has agreed to acquire Woodville Polymer Engineering, the UK-based subsidiary of US group Colt Industries, for £35.9m in cash.

The move is part of the restructuring of Colt, the aerospace, automotive component and industrial group, which last autumn launched a massive recapitalisation programme. Under the scheme, the company agreed to borrow £1.4m and distribute £1.5m to shareholders.

Colt was left with borrowings of £1.6m and a negative net worth of £1.1m. Since then, constraints on cash flow have

encouraged Colt to dispose of some of its peripheral interests. The main attraction of Woodville to Dowty, is its significant links with the defence industry. Defence currently constitutes around 40 per cent of Dowty's sales.

Woodville supplies the UK Navy with acoustic and radar absorption and decoupling polymers for stealth applications. In addition, it supplies aerodynamic seals for swing-wing aircraft, like the F111.

In 1986, Woodville made pre-tax profits, before corporate charges, of £3.5m on sales of between £20m and £30m and at the end of the year had net tangible assets of £7.4m. More

than 50 per cent of its sales are exported. Mr Keith Toffield, Woodville's managing director, will take charge of Dowty's enlarged polymer engineering activities and the company will slot into Dowty's industrial division.

Mr Tony Thatcher, Dowty's chief executive said yesterday that "our business base should accelerate Woodville's growth and the acquisition will also assist in the process of repositioning our existing industrial business."

Dowty will fund the consideration from medium-term bank borrowings and its gearing level will increase to around 30 per cent in consequence.

## Sunleigh has 9.4% of Dale

BY ALICE RAWSTHORN

Sunleigh Electronics, the US quoted electronics holding company, yesterday announced that it had secured acceptances representing 9.37 per cent of Dale Electric's shares by its latest closing date of its takeover bid on Friday.

The cash offer for Dale has now closed, but Sunleigh has extended its offer of 13 shares for every four Dale shares, until 3.00 pm on Monday. Sunleigh's shares rose by 1p to 41p yesterday, while Dale's remained at 100p.

The paper offer is the worth 135p a share and values Dale at £17.5m. Dale Electric, which is involved with the manufacture of lighting and generator sets, is a bastion of traditional British industry tracing its roots back to the Yorkshire of 1930s. Sunleigh is a more recent phenomenon. Its growth began 18 months ago when the expansive FET Electronics bought a stake in Sunleigh, a small USSE concern, and embarked upon a stream of acquisitions.

On Friday the Sunleigh cash offer of 110.5p for each Dale share had attracted acceptances for 841,732 Dale shares or 6.27 per cent of its equity. The shares offer gleaned acceptances

representing 416,006 shares or 3.1 per cent.

Before the original offer was mooted Sunleigh had acquired 5.73 per cent of Dale's shares. It has since embarked upon active share buying and purchased an additional 29,000 shares late on Friday bringing the value of shares acquired to 8.55 per cent of Dale's equity.

Singer and Friedlander, the merchant bank acting for Sunleigh, said yesterday that the company was not disheartened by the level of acceptances received by Friday and that it "had always expected" the institutions to wait until the very end of the bid.

The Dale camp was bullish about the news. Mr Iain Dale, group chief executive, said that the board had been "most encouraged by the degree of shareholders' support."

## DIVIDENDS ANNOUNCED

	Current payment	Date	Corresponding payment	Total of pending div	Total for year	Total last year
Airflow Stream	2.75	—	1.25	3	1.5	—
Borthwicks	0.5	July 20	—	—	0.75	—
Carlton Communications	3.5	Aug 21	2.5	6	8	—
Eng and Int Trust	3.1	—	2.85	4.95	2.85	—
FKB Group	3.35	—	2.5	3.35	2.5	—
IBL	0.4	Aug 3	0.8	0.8	1.2	—
Powell Duffryn	11.75	—	10.7	16.5	15.2	—
Sheraton Secs.	0.75	—	0.5	1.18	0.75	—
TR Natural	2.38	—	2.38	4.13	4.13*	—
Valour	4.24	—	3.77	5.77	5.13	—
York Trust	1	July 25	—	1	0.6	—

Dividends shown pence per share net except where otherwise stated. \* Equivalent after allowing for scrip issue. † On capital increased by rights and/or acquisition issues. ‡ USSE stock. § Unquoted stock.

## Contracts and Tenders

## Petromin

## TENDER NOTICE

Preliminary to the invitation of international qualified bids, the General Petroleum & Mineral Organization, "PETROMIN", invites manufacturers of chemical additives to submit prequalification applications to provide PETROMIN's subsidiaries and factories with quantities required for the blending of about one million barrels of Lubricants and Greases for use by petrol, diesel, and marine engines as well as other industrial machinery. All materials supplied should conform to international standards and specifications.

## Conditions for Prequalification:

## THE PREQUALIFYING COMPANY SHOULD:

1. Be the original manufacturers of the chemical additives.
2. Have research and development facilities and capability in the field of processing chemical additives to cope with the developing international qualifications.
3. Present proof of his experience and evidence of his activities in this field during the last five years as a minimum.
4. Undertake to carry out at his expense, in co-ordination with PETROMIN, performance tests using PETROMIN's base stocks of "LUBREF" and submit the required certificates testifying that they conform to international qualifications such as those of the American Petroleum Institute. They should also obtain in co-ordination with Petromin, attestation certificates from manufacturers of machinery as to the high quality of the various Lubricants and Greases.
5. Initially undertake to submit proposed chemical formulations up to the level of the required performance and also the results of quality performance tests using base stocks similar to LUBREF's Lubricants as shown by computer simulations.
6. Undertake to provide after-sale services in connection with improving the standard and level of performance of the Lubricants to cope with developments in this field.
7. Submit a copy of their constituting by-laws and a statement of their financial position for the last two years.
8. Should not be boycotted according to Saudi Regulations.

All prequalification applications should be submitted to the General Petroleum & Mineral Organization, "PETROMIN", Riyadh 11189, Kingdom of Saudi Arabia, Fax No. 4792849, Telex No. 401058 SJ. (401490) - (402802) - (401615) S.J. in sealed envelopes addressed as follows:

"Prequalification for Supply of Chemical Additives"

Attention: Legal Advisor / Faisal Al-Jarba

All enquires should also be sent to the same address.

The last date for submitting applications is Saturday the 1st of Dhul Quida corresponding to 27/6/1987.

Only companies and organizations qualified in accordance with the above conditions will be invited to tender.

## Bank of Communications

(Taipei, Taiwan, Republic of China)

U.S.\$40,000,000 Floating Rate Notes due 1993

(Redeemable at the Noteholders' option in 1990)

In accordance with the provisions of the above Notes, notice is hereby given that for the six months from 29th May 1987 to 30th November 1987, the Notes will carry an interest rate of 7.4% per annum.

The interest payable on each U.S.\$10,000 and U.S.\$250,000 Note on the relevant interest payment date, 30th November 1987, against Coupon No. 9 will be U.S.\$401.48 and U.S.\$10,036.89 respectively.

Agent Bank:



Lloyds Merchant Bank



## Bank of Baroda

U.S.\$30,000,000 Floating Rate Notes due 1989

In accordance with the provisions of the above Notes, notice is hereby given that for the six months from 29th May 1987 to 30th November 1987, the Notes will carry an interest rate of 7.4% per annum.

The interest payable on each U.S.\$5,000 Note on the relevant interest payment date, 30th November 1987, against Coupon No. 11 will be U.S.\$200.74

Agent Bank:



Lloyds Merchant Bank



## UK COMPANY NEWS

## Powell Duffryn gets a fuel boost

BY ALICE RAWSTHORN

Powell Duffryn, the fuel distribution, shipping and specialist engineering group, yesterday unveiled a 23 per cent increase in pre-tax profits to £27.06m after a financial year in which profits growth in most areas of activity counteracted a decline in shipping interests.

In recent years, Powell Duffryn has performed rather erratically, suffering first from the miners' strike and then from the oil price crisis.

Mr David Hubbard, chairman, said that the group had taken advantage of "calmer conditions" in its last year "to develop and strengthen" its business.

Within fuel distribution, Powell Duffryn benefited from the trend towards heavier oils and from the return to profits

of its French business. Turnover for the year to March 31 fell to £366m (£412.9m) but trading profits rose to £14.8m (£10.1m).

Shipping suffered, because of the parallel problems posed by a lack of market and the loss of contracts from the Central Electricity Generating Board. Turnover slipped to £91.4m (£99.4m) and trading profits to £4.1m (£8.4m). The group has already implemented a cost cutting programme.

Bulk liquid storage staged a recovery, helped by healthy worldwide demand, with turnover rising to £21.7m (£21m) and profits to £4m (£3.4m).

Engineering benefited from loss elimination—with overseas interests returning to profit—after a year in which turnover slipped to £145.9m (£150.8m)

but profits increased to £8.8m (£5.7m). The construction division was quiet, although the company expects a slight upturn from South Wales civil engineering. Turnover fell to £17m (£17.9m) and profits to £2.2m (£2.3m).

Despite a £35m programme of acquisitions and capital expenditure, interest payable fell to £4.4m (£5.3m). The tax charge also fell, because of a broader balance of interests, and taxation deducted £10.1m (£9m).

Earnings per share rose to 36.2p (20.5p) and the board proposes to pay a final dividend of 11.75p making 16.5p (15.2p).

comment  
To most companies the epithet dull but worthy would be interpreted as a pejorative. To

Powell Duffryn, after years of volatility, it must come as a great relief. The City celebrated by adding 24p to the share price to 414p. But dullness and worth is all it can expect for some time to come. The present cost-cutting programme should cushion the effects of the slump in shipping, while engineering will receive the full benefit of loss elimination in the present year. Construction may benefit from the new road-building schemes in South Wales and bulk liquid storage offers a glimpse of new, niche businesses. Powell Duffryn should muster £32m in the present year and the lower tax charge will add a flip to earnings per share. Yet a prospective p/s of 12.5 is only just sustainable by such an unenticing spread of businesses.

## SHARE STAKES

Changes in company share stakes over the past week included:

**Brent Walker Group**—The following directors have taken up shares pursuant to the rights issue: G. A. Walker 5,675,554 rights and now holds 11,947,186; W. Aquilina 37,192 and now holds 109,384; Sir Kenneth Cork 4,945 and now holds 9,890; J. G. Hemmings 335,428 and now holds 1,060,000; N. J. McClelland 125,000 and now holds 215,000; and T. R. Quinlan 5,000 and now holds 62,142.

**Albert Fisher Group**—Directors have sold, by means of a placing through the market, the following number of nil paid new ordinary issued to them pursuant to the current rights issue: A. P. Miller 1,718,654; S. P. Barker 178,553; R. P. Edwards 26,261; N. D. Freeman 95,000; D. G. Pearce 10,971; R. G. Portegill 494,652; G. A. Winkler 16,224. Following these transactions, the

directors continue to hold beneficially a total of 9,025,544 ordinary, and have taken up rights over 184,210 new ordinary.

**Horizon Travel**—B. H. Firmin exercised his option over 67,000 ordinary. **British and Commonwealth Holdings**—Director R. C. Lacy disposed of 200,000 ordinary. **Stanley Miller Holdings**—Following directors disposed of ordinary: Dr N. R. Bell 200,000 at 102p and 33,941 at 116p beneficially owned and 40,000 at 116p jointly owned with R. A. Soan who disposed of 40,000 at 116p.

**Laura Ashley**—director A. H. Schouten sold 17,000 ordinary. **W. R. Smith and Son (Holdings)**—Director J. D. Smith disposed of 10,000 "B" ordinary (0.01 per cent) and now holds 57,000 (0.04 per cent). Director M. D. Field acquired 50,000 "A" ordinary (0.03 per

cent) and now holds 55,640 (0.03).

**Lawrie Group**—Walter Duncan and Goodriches has acquired 9,250 ordinary and now holds 435,198 (17.03 per cent). As a result of the purchases the combined shareholding of W. D. and G. and its subsidiary, Isa Steel Tea Co is now 467,278 ordinary (18.37 per cent).

**Granite Group**—Mr Alan Chesworth has reduced his beneficial holding of Ordinary shares from 7,594 per cent to 6,503 per cent.

**Delta Group**—Following directors acquired Ordinary: G. H. Wilson 13,335, and now holds 94,951. R. A. Thomas acquired 10,000 and now holds 88,000. **Jack L. Israel**—following acquisition of John Martin Foods Drying Corporation NV holds 10,749,947 ordinary

(12.533 per cent) and Finehide holds 4,500,000 ordinary (3.372 per cent). Mr Y. Gottsman, a director, is the holder of 1,500,000 ordinary (1.79 per cent). Mr J. M. Alexander, a director, transferred 750,000 ordinary to a settlement on his grandchildren; he is now the holder of 9,170,223 shares (0.75 per cent).

**Etam**—Director R. M. Burton disposed of 10,000 ordinary out of a trust of which he is a trustee. His non-beneficial interest is now 1,895,700 (3.84 per cent) and 1,895,380 (3.04 per cent) beneficially owned. Director N. C. Ireland acquired 3,000 ordinary and now holds 3,000. Director H. R. Lindemann (US) disposed of 200,000 ordinary out of a trust of which he is a trustee.

**Lee Cooper**—Mrs S. P. Roter, a substantial shareholder, has disposed of 25,000 ordinary and is now interested in 1,460,340 (some 8.9 per cent).

## Sheraton Securities doubles to £4.7m

Sheraton Securities International, property developer and investment, doubled its pre-tax profits from £2.5m to £4.65m in the year to March 31 1987.

Mr Peter Taylor, the managing director, said that the company had now assembled a portfolio of prestigious projects which would provide a continued flow of trading profits and ensured the company's future in the forefront of property development companies.

The current development programme largely consisted of offices in central London, the London suburbs and the south-east; business parks, high tech and industrial schemes in the south of England; and retail projects both in town centres and out of town locations.

The value on completion of developments where planning consent had been obtained was estimated at £250m and the value of completed business parks would amount to a similar sum.

The recent acquisition of property in Sackville Street indicated the company's desire to carry out larger projects in central London where it intended to double the size of its programme over the next twelve months.

The company's other area for expansion was in the retail sector where it had put together a number of developments. In addition to these areas, the three business parks would give excellent prospects for the longer term. Income and asset growth to support company's shorter term development.

The board believed that the company was firmly set on a path of increased growth in profits which emanated from its trading programmes.

Gross rental income last year rose 46 per cent from £225,000 to £335m while property sales and management fees were substantially up from £5.74m to £19.72m. Net property income was £4.86m (£2.52m) interest payable £2.32m (£1.78m) and interest capitalised, a credit of £1.88m (£1.46m). There was a credit of £244,000 (£133,000) from related companies.

Tax charged was £980,000 (£158,000) leaving earnings per share of 3.5p (2.6p) and 3.4p (2.4p) dividend. Dividend is raised from 0.75p to 1.125p with a recommended final of 0.76p.

**RESTAIR** has acquired Premier Recruitment Services for £650,000, of which £520,000 is in cash and the remainder satisfied by the issue of 44,521 Restair ordinary.

## BOARD MEETINGS

The following companies have notified dates of board meetings to the Stock Exchange. Such meetings are usually held for the purpose of considering dividends. Official indications are not available as to whether the dividends are interim or final and the subdivisions shown below are based mainly on last year's transactions.

Interim: Hanson Trust, Sturge, Finlay, Berwick, CML Microsystems, Carless Capital and Leonard, Chapman Industries, Cullin, De La Rue, St. Ore Mining and Exploration, Exploration Co., Goodwin Warren Control Systems, Monie and Grant, Harrow, Great Wilsons, Piyon, Spence, Skatshley, Storehouse.

FUTURE DATES	
Interim:	
Dwyer	June 4
Great Western Resources	June 8
Nash Industries	June 9
TSB	June 22
Winey	June 9
Final:	
Alexon	June 15
Apriorit Computers	June 15
BPS Industries	June 22
Brown (N.)	June 8
Century Oil	June 8
Electronic Rentals	June 4
Finley (James)	June 18
Gay/Reese	June 19
Hickling Pentacost	June 12
Holden Hydroman	June 4
M.K. Electric	June 24
Rowlinson Securities	June 9
Sonic	June 12



**Deutsche Bank**  
Aktiengesellschaft

## Rights Offer

Pursuant to the authority granted at the Ordinary General Meeting on 18th May 1983 the Board of Managing Directors has resolved, with the consent of the Supervisory Board, to increase the share capital by DM 150,000,000 to DM 1,753,384, 850 through the issue of 2,600,000 new shares of DM 50 each (ranking for dividend from 1st January 1987) at an issue price of DM 450 per DM 50 share.

The new shares have been underwritten by banks with the obligation to offer them to

- our shareholders
- the holders of warrants from the 64% U.S. Dollar Bonds and 39% Deutsche Mark Bonds with Warrants of 1983/1991 issued by Deutsche Bank Luxembourg S.A. (formerly Deutsche Bank Compagnie Financière Luxembourg S.A.)
- the holders of 4% Convertible Bonds of 1984 of our bank
- the holders of warrants from the 64% Deutsche Mark Bonds of 1986/1996 with warrants attached, issued by Deutsche Bank Finance N.V.

The increase in capital having been entered in the Commercial Register we invite our shareholders, the holders of the warrants and the holders of the convertible bonds to exercise their subscription rights against presentation of Dividend Coupon No. 48 from the old shares, or Receipt to Bearer B attached to the warrants from the bonds with warrants of 1983/1991 and to the convertible bonds of 1984, or Receipt to Bearer A attached to the warrants from the bonds with warrants of 1986/1996 at one of the subscription agents during normal banking hours from 10th June to 24th June, 1987 inclusive to avoid exclusion.

**Subscription Agents in the United Kingdom**  
Deutsche Bank AG, London Branch, 6, Bishopsgate, London EC2P 2AT.

Midland Bank plc, International Division, Securities Department, St. Magnus House, 3, Lower Thames Street, London EC3R 6HA.

For every 15 old shares in the nominal amount of DM 50 and for every 15 warrants from the bonds with warrants of 1983/1991 and 1986/1996, and for convertible bonds of 1984, in the nominal amount of DM 3,750, one new DM 50 share may be purchased, at a price of DM 450 upon presentation of the coupons or receipts to bearer mentioned above. The date for payment of the subscription price is 24th June, 1987.

The subscription rights from shares, warrants and convertible bonds will be traded and officially listed on all German stock exchanges and on The Stock Exchange in London from 10th June to 22nd June, 1987 and the existing shares will be dealt in ex-rights as from 10th June, 1987. A combination of the different subscription rights may be used. Rights may only be exercised for whole numbers of new shares and holders of rights are advised either to purchase the extra number of rights they require or to sell their excess rights. The subscription agents are prepared to arrange for the purchase and sale of subscription rights.

The new shares (Securities Index No. 304 010) are evidenced by a global certificate deposited with Frankfurter Kassenverein AG. Buyers will be credited in a joint share account for their new shares. If requested, bearer certificates will be made available, which will be accompanied by Dividend Coupons Nos. 48-50 and a renewal coupon.

Application has been made to the Council of The Stock Exchange for the new shares to be admitted to the Official List. The new shares have been admitted to listing and official quotation on all German stock exchanges. Dealings in the new shares are expected to commence as from 28th June, 1987 for normal settlement. The new shares will be introduced to the stock exchanges in Amsterdam, Antwerp, Brussels, Basle, Geneva, Zürich, Luxembourg, Paris and Vienna in accordance with the regulations of each exchange.

Shareholders are strongly advised to consult their stockbroker, bank manager, solicitor, accountant or other professional adviser immediately.

Frankfurt am Main, 2nd June, 1987.  
The Board of Managing Directors

## SCOTTISH INVESTMENT TRUST

**Up again—but of course that's only half the story**



Once again, Scottish Investment Trust has added another chapter to its continuing success story. And in this, our centenary year, we look forward to the next hundred years of growth.

The result? An interim dividend up by 13% on last year and, if you've been one of our stockholders over the last five years, an average annual rate of return of more than 30%.

1987, S.I.T.'s net asset value per ordinary stock unit rose 11.5% to 538.7p on total assets up 13.6% to £543.8m.

**THE SCOTTISH INVESTMENT TRUST PLC**

To The Secretary, The Scottish Investment Trust PLC, PRESTON, Edinburgh EH2 0DL.

NAME \_\_\_\_\_ ADDRESS \_\_\_\_\_

Please send me a copy of the 1986 annual report now and the 1987 interim report in July.

## DARES ESTATES p.l.c.

(Incorporated with limited liability in England, Registered No. 713016)

Placing of £15,000,000 10% per cent.  
First Mortgage Debenture Stock 2012  
at £99.239 per £100 nominal, payable in full on  
8th June, 1987

The Council of The Stock Exchange has granted permission for the whole of the Stock to be admitted to the Official List.  
Listing Particulars are available in the Exel Statistical Services and copies may be obtained during normal business hours on any weekday (excluding Saturdays and bank holidays) up to and including 16th June, 1987, from:

Dares Estates p.l.c.  
8 Clifford Street  
London W1X 1RB

Kleinwort Benson Limited  
20 Fenchurch Street  
London EC3P 3DB

Schragoer Vickers & Co. Limited  
20 Copthall Avenue  
London EC2R 7JS

until 4th June, 1987 only, from

The Company Announcements Office,  
The Stock Exchange,  
Throgmorton Street, London EC2P 2BT

2nd June, 1987

## THE DREYFUS INTERCONTINENTAL INVESTMENT FUND N.V.

## DECLARATION OF DIVIDEND

At the Annual General Meeting of The Dreyfus Intercontinental Investment Fund N.V., held in Curaçao on May 14, 1987, the Shareholders of the Fund, acting upon the recommendation of the Fund's Board of Directors, declared a dividend of \$0.12 (U.S.) per share to Shareholders of record on May 29, 1987. This dividend is payable on June 9, 1987 to holders of bearer shares upon surrender of Dividend Coupon No. 17 as attached to the share certificate, to one of the offices of the paying banks listed below. This distribution is being made from net investment income.

Morgan Grenfell & Co. Limited  
23 Great Winchester Street  
London EC2P 2AX  
England

Deutsche Bank AG  
Groesse Gallusstr. 10-14  
6 Frankfurt/Main 1  
West Germany

Banque Internationale à  
Luxembourg  
2, Boulevard Royal  
Luxembourg-Ville  
Luxembourg 2205

RoyWest Trust Corporation  
(Bahamas) Limited  
Mutual Funds Department  
P.O. Box N7788  
Nassau, Bahamas Islands

Dividends payable on shares held in a Dreyfus Intercontinental Voluntary Account will either be paid directly to the Account holder or automatically reinvested, depending upon the election made by the Account holder when his Account was established.

Reports are available at the offices of the above-mentioned paying banks or at

Dreyfus GmbH,  
Maximilianstr. 24, 8 München 22, West Germany.

This advertisement is issued in compliance with the requirements of the Council of The Stock Exchange. It does not constitute an offer or an invitation to the public to subscribe for or purchase any securities.

## ENERGY &amp; RESOURCES INTERNATIONAL LIMITED

(Registered in Guernsey under the Companies (Guernsey) Laws 1986 to 1973)

Authorised		SHARE CAPITAL		Issued as at 2 June 1987	
US\$				US\$	
1,500,000		In Unclassified Shares of US\$0.01 each available for issue as Participating Redeemable Preference Shares or Nominal Shares		55,987,800	
100		In Deferred Shares of US\$1.00 each		100	
1,500,100				55,987,900	

Energy & Resources International Limited ("ERI") is an open-ended investment company registered and managed in Guernsey which was formed to acquire the business and assets of Energy Resources & Services Incorporated, a closed-ended investment company incorporated in Panama in April 1981. The investment objective of ERI is to produce capital growth principally through investment in the securities of companies involved in the exploration, production, marketing and distribution of all forms of energy, precious and other metals and minerals and all types of commodities including man-made materials.

All the above-mentioned Shares of US\$0.01 each have been admitted to the Official List of The Stock Exchange. Dealings in the securities will commence on 2nd June 1987.

Particulars of ERI are available in the statistical services of Exel Statistical Services Limited. Copies of the Continuous Prospectus of ERI may be obtained during normal business hours from the Company Announcements Office of the Quotations Department (for collection only) up to and including 4th June 1987 or during normal business hours on any weekday (Saturdays excepted) from

Ferrier Lullin & Co. S.A.  
15 Rue Pothier  
1204 Geneva  
Switzerland

John Govett & Co. Limited  
Winchester House  
77 London Wall  
London EC2N 1DH

John Govett Management  
(Guernsey) Limited  
PO Box 208  
Bermuda House  
St. Julian's Avenue  
St. Peter Port, Guernsey  
Channel Islands

Cazenove & Co.  
22 Tokenhouse Yard  
London EC2R 7AN

2nd June 1987



This advertisement is issued in compliance with the Regulations of the Council of The Stock Exchange. Application has been made to the Council of The Stock Exchange for the 8.3 per cent. Cumulative Redeemable Preference shares 2002 and the 13.75 per cent. Cumulative Preference shares to be admitted to the Official List.

## PROWING Plc

(Incorporated in England under the Companies Act 1948 to 1967 Registered No. 227079)

### Placing by

### Chase Investment Bank Limited

of  
**8.3 per cent. Cumulative Redeemable Preference shares 2002 of £1 each**

and of

**13.75 per cent. Cumulative Preference shares of £1 each**

Present		Proposed	
Authorised	Issued Fully paid	Authorised	Issued Fully paid
£000	£000	£000	£000
190	126	—	—
—	—	379	253
1,010	1,010	1,010	1,010
—	—	6,000	6,000
1,200	1,136	7,389	7,263

Full particulars of Prowing Plc are available through the Exel Statistical Services. Copies of the Listing Particulars can be obtained until 18th June, 1987 from:

**Chase Manhattan Securities** **Chase Investment Bank Limited**  
Woodgate House **Portland House**  
Coleman Street **72/73 Basinghall Street**  
London EC2P 2HD **London EC2V 5DP**

Copies of the Listing Particulars will also be available until 5th June, 1987 from the Companies Announcements Office, The Stock Exchange, London EC2P 2BT.

2nd June, 1987

## UK COMPANY NEWS

### BID SPECULATION RESTRICTS SHARE PRICE FALL TO 40P

## IBL £5m below City forecasts

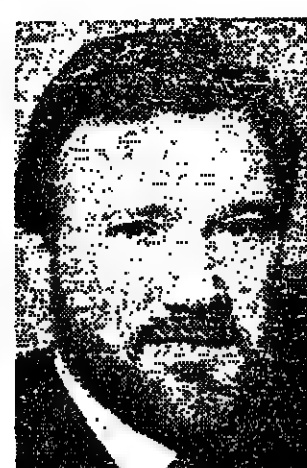
NEARLY a third of the market capitalisation of IBL, the computer leasing company, was wiped out yesterday after the company announced pre-tax profits for 1986 of only £4.5m, around £5m to £6m down on market estimates.

The shares touched 63p, after closing on Friday at 125p, but recovered on bid speculation to end the day down 40p at 85p. The market was obviously totally unprepared for the bad news, after the chairman's confidence of "a resumption of growth in profits" at the interim stage.

The outlook remains gloomy in the short-term, with the interim figures expected to be disappointing, and the company is halving the final dividend from 0.8p to 0.4p, making a total of 0.8p (1.2p) for the year.

After discussions with the auditors, IBL agreed to adopt what the company described as "very conservative" accounting policies for residual values, which left profits some £5m lower than if they had been based on directors' original estimates.

IBL is now using the estimates of residual values made by IDC, an independent group, which over the year have drifted substantially lower than directors' valuations. In previous years, directors estimates had been on average equal to,



Mr Philip Coussens, chairman of IBL.

or lower than, IDC valuations. Had the directors continued to use their own estimates, the auditors would have qualified the accounts.

However, a separate change in accounting policies increased pre-tax profits by £1.38m and caused the 1986 figures to be adjusted upwards by £462,000. The upward revision was due to the decision to treat arranged leases, where the group retains a significant interest in the residual value of the equipment, as sales for accounting purposes.

Apart from the accounting changes, the company also had

to report disappointing trading results in two areas—the US and personal computers. Both operations have been extremely curtailed—in the US, the company will henceforth concentrate on broking and it has discontinued its volume personal computing business to concentrate on networking systems.

US and personal computing losses are taken as exceptional debits of £3.8m and £2.5m respectively, but they are offset by a £4.4m credit from the sale of residual interests acquired with the ICC lease portfolio and the result is a net exceptional debit of £1.87m.

Mr Patricia Courbey, who joined the board last September, has become the new managing director and chief executive, and Mr Philip Coussens, the chairman of the group, who owns around 55 per cent of the equity, will continue in a non-executive role.

Mr Courbey hopes to cut the group's overheads—he has already done the trick in France where he cut costs by 80 per cent—and plans to build up business in more complex "value added" leases. Discussions about the purchase of CSC Europe, a German leasing company, have been terminated.

Profit before exceptional and tax was £6.57m (adjusted £6.9m) on turnover 34 per cent higher at £341.8m (£254.8m).

There was a tax credit of £182,000 (£1.01m charge) and earnings per share were lower at 6.55p (£1.88p).

### comment

For IBL to produce profits that are half market estimates two years running is nothing to be consistent. That a shift in accounting policies was a large part of the problem did not reassure—dislike of the treatment of residual values was one reason why predators have found it so easy to reduce the ranks of the computing leasing sector from five to two in recent months. A shake-up in management was obviously long overdue—Mr Courbey must have

outtraveled Alan Whicker in recent months as he tried to sort out the problems in France, the US and the European personal computer operations. But the market is unlikely to give the new management much time to reorganise. Residuals linger in the p&L in the form of the arranged leases, the gearing is a horrendous 270 per cent and competition is fierce. At £1m pre-tax and 85p, the shares are on a prospective p/e of under 10 but they look cheap to potential predators, rather than to short or even long term investors. The maintenance link with Olivetti, announced yesterday, might cause a few to have a speculative flutter that the Italians are set to harvest another Acorn.

## Wehmiller offer is subscribed 31.5 times

By Alice Rawsthorn

Barry Wehmiller International, a manufacturer of packaging equipment, is the latest stock market newcomer to stage a heavily oversubscribed offer for sale. The company announced yesterday that it had received applications for 31.5 times the number of shares available.

When Wehmiller went public two weeks ago it issued 15.87m shares or 70 per cent of its equity, at 135p each. Hill Samuel, its merchant bank, received 50,000 applications for 500m shares. Thus the issue attracted 574m for shares worth just £21.4m.

The company's employees made preferential applications for 34,700 shares. The remaining shares will be allocated by ballot.

Applications for between 200 and 1,000 shares will be put into a weighted ballot for 200 shares; for 1,500 to 5,000 into a weighted ballot for 300; and for 6,000 to 10,000 into a weighted ballot for 400. Applicants for 15,000 to 90,000 shares will receive approximately 3 per cent of the shares applied for; applicants for 100,000 to 940,000 will receive 3.45 per cent; and applicants for 1m or more shares will receive 3.5 per cent.

Letters of acceptance will be posted to applicants on Thursday and dealing in the shares should start on Friday. When dealings begin the shares are expected to begin trading at an immediate premium.

The Wehmiller issue is the latest in a long line of successful IPOs. Rolls Royce, Sock Shop, Computer People and Pickwick have all mounted heavily oversubscribed offers in the past month or so. Today's Rack, the specialist retailing group, will publish the prospectus for its offer for sale.

## Airflow up sharply in second half

Profits growth of Airflow Steelmining, a coal and gas producer, manufacturer and Ford car and trucks main dealer, accelerated sharply in the second half of 1986/87.

After a gain of 20 per cent in the first six months, pre-tax profits for the whole of the year to February 28 1987 rose 72 per cent from £207,000 to £356,000. The profit included an exceptional item of £90,000 on the sale of surplus properties.

Turnover during the year rose from £32.59m to £41.32m with manufacturing sales increasing from £12.33m to £17.93m and those of the motor division from £19.75m to £23.38m. Profits attributable to each division were £10.4m (£560,000) and £226,000 (£407,000) respectively.

Tax charged amounted to £587,000 (£402,000) and earnings per 25p ordinary share were 11.95p (6.01p). The dividend goes up from 1.5p to 3p per share with a proposed final of 2.75p.

## York Trust swings back to profit

York Trust Group, an investment holding concern which expanded during 1986-87 via a number of significant acquisitions, swung from restated losses of £0.75m to profits of £1.77m pre-tax over the period. Since year-end the group has acquired 35 per cent of London Commodities, one of the largest members of LIFPE, together with an option to purchase the remaining 65 per cent.

Mr Neil Balfour, chairman, said the outlook was excellent, particularly at the group should see a full contribution during the current 12 months from recent acquisitions.

The realisation of the investment in John Crowther had helped to provide resources to develop the group's core businesses—corporate services, financial services and financial futures broking.

The group would continue to expand its range of services, both domestically and internationally. Where appropriate, this growth would be achieved by acquisition.

For the year to March 31 group income totalled £5.28m (£1.48m). After tax of £33,239 (£39,943) and minorities this time of £3,000 earnings per 10p share amounted to 4.79p (losses 3.19p).

No interim dividend was paid but a final of 1p is recommended—for 1986-86 shareholders received an interim only of 0.6p. Extraordinary provisions accounted for £19,328 (£1.42m). The group's shares are traded on the USM.

## Borthwicks rises to £462,000

Borthwicks, international food manufacturer, has produced interim pre-tax profits of £462,000, more than ten-fold the previous figure of £43,000, on turnover down nearly 30 per cent to £133.51m.

However, Mr Lewis Robertson, chairman of the group which has climbed back out of heavy losses after large-scale restructuring including the sale of several subsidiaries, warned that the changes made comparisons misleading.

Turnover fell by more than £56m, but if continuing businesses are compared, turnover increased by nearly £15m, he said. "Businesses divested accounted for some £260,000 of the decline in operating profit, but lower interest charges of £1.07m (£3.14m) helped the pre-tax figure to rise.

Net group borrowings, which fell from £16m in 1985 to £1.2m in 1986, fell further to £12m at end-March. The group is to return to an interim dividend with a payment of 0.5p per share.

The food products activities as a whole were close to target, with a temporary fall in demand for the savoury business and a strong performance from the Broadland snot business.

In the UK meat division New Zealand lamb imports fell behind schedule and impaired profits. Fluctuations in the wool market diminished acceptable results from Australia, the US and Japan.

The divestment programme was nearing its end, said Mr Robertson, and staff could be redeployed onto development and acquisition projects. The jelly slices business of Devon Candies—the first food products acquisition since the reconstruction—had been agreed.

Two new directors had joined the board, Mr Stuart Milton as finance director and Mr Paul Lipscomb as corporate development director.

The overall picture is of a group that has emerged from its time of troubles and is carrying through its reorientation as predominantly a manufacturer of food products and ingredients, including further products, "meats", said Mr Robertson.

Because of timing and launch costs the new meat products would not contribute to profits in the current year, he said. "For the full year I am confident that the thrust of renewal will continue, and that results will reward the efforts of recent months and years."

After tax of £151,000 (£205,000), earnings per 10p share worked out at 0.8p (0.3p loss). The dividend is raised from 2.5p to 3.35p.

ment of Heaven and Goy as a graphic design consultancy, the directors viewed the future with confidence.

Turnover last year climbed from £10.24m to £14.76m and operating profit emerged at £1.9m (£1.27m). Other income amounted to £175,000 (£168,000), tax took £798,000 (£599,000) and minorities £137,000 (£152,000) leaving attributable profits of £1.14m (£788,000) and net earnings per share of 12.60p (9.45p). The dividend is raised from 2.5p to 3.35p.

The directors felt it would be inappropriate to resume payment of dividends on the "A" shares until the company had achieved profit stability necessary to sustain continued dividend payments. They therefore proposed to defer the payment of a dividend on June 30.

Aitken Hume stake

Mr Guy O Dove III, an international financier, has acquired a 5.5 per cent stake in Aitken Hume International, the financial services group. The 2.5m shares were bought at an average price of 155.7p.

There was speculation that the holding might have come from Mr Jack Hayward, the Bahamas-based investor, who has a stake in Aitken of similar size.

Two overseas groups, Lee Ming Tee and Rawda Investments, each own 24.5 per cent of Aitken and have representation on the board.

### comment

Borthwicks disappointed with these figures but the explanation has disappointed even more—UK meat processing is still in the red, some of the Australian goose was cooked by a shortage of livestock and the launch (but not the costs) of the new product, "muscle meat", has had to be delayed by months. By this time the City was hoping that the basic shape of Borthwicks would have become clear and an identifiable body of core earnings established in businesses that did not entirely depend on the whims of Antipodean farmers. The notion that Borthwicks, fearing that it may look overready to someone who likes their meat underdone, is deliberately holding back is surely a little too good to be true. More likely the company still has another year to go and not all in the rescue squad may make it through to the building team. The analysts have therefore shaved their forecasts by 51m or so to around 59m. On a 10 per cent tax charge, the share price is on a prospective multiple of 16.5—at which rating even long-term institutional holders may want to top slice given the 1986-87 prospects.

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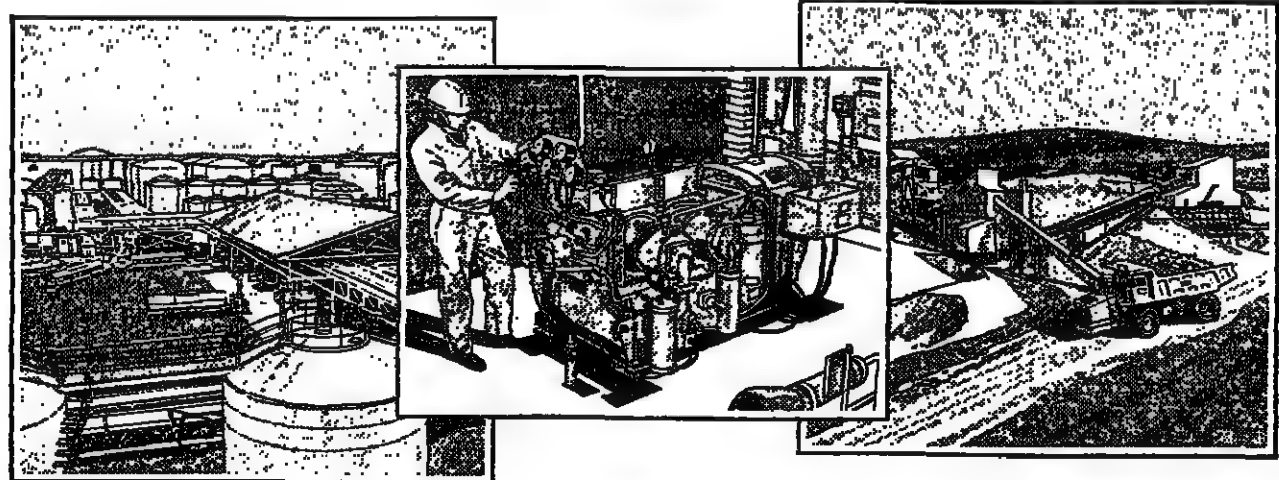
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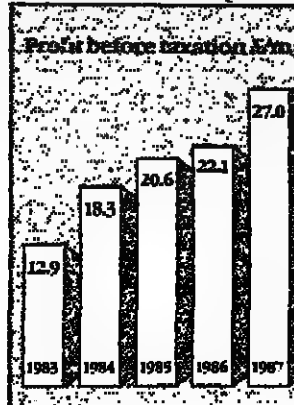
# POWELL DUFFRYN

## Strength and growth



### Group Development

Over £15 million was committed in the year to the purchase of related businesses which strengthen the Fuel Distribution, Shipping and Engineering activities, in addition £20 million was incurred on normal capital maintenance and renewal throughout the group. The momentum developed by the acquisitions is already having a positive impact and further organic growth is planned.



### Summary of Results

	1987	% change on 1986
Year ended 31st March		
Profit before taxation	£27.0m	+22%
Profit after taxation	£16.9m	+29%
Earnings per share	26.2p	+29%
Dividends per share	16.5p	+8.5%
Gearing ratio	24%	—
Return on assets employed	19.7%	+22%

Powell Duffryn is an industrial group with three quarters of its interests in distribution and storage, principally oil, coal and chemicals in bulk, and one quarter in specialist engineering and the supply of construction materials.

**POWELL DUFFRYN**



## Jackson Group

Construction and Industrial Services

### ANNUAL RESULTS

"1986 maintained the long-established trend of annual increase in turnover and profit and there is every prospect of its continuation in the present year"

reports F. Jackson, chairman

Year to 31 December	1986	1985
	£000	£000
Turnover	38,576	33,591
Pre-tax profits	1,504	1,323
Earnings per share	18.1p	14.7p
Dividends per share	5.0p	4.3p
Net assets per share	152p	141p

Report and Accounts from Jackson Group Plc, Dobbs Lane, Kesgrave, Ipswich. Shares traded by Granville & Co. Ltd.

## Continental Airlines, Inc.

US\$38,500,000

Floating Rate Notes due 1996

Notice is hereby given that the rate of interest on the above Notes for the period 2nd June, 1987 to 1st September, 1987 has been fixed at 5.125% per annum, payable 2nd September, 1987.

The amount payable against Coupon No. 4 will be \$22.81 per \$1,000 Note.

**J. Henry Schroder Wagg & Co. Limited**  
Reference Agent



# FINANCIAL TIMES SURVEY



Improvements in communications, notably the opening of the M25 motorway, are subjecting Guildford,

Surrey, to increasingly heavy overtures from developers. But, as Alastair Guild explains in this survey, the borough is determined to guard its county town ambience and Green Belt environment, while also strengthening the local economy.

## Absorbing the pressures

**TOWN OR CITY?** The Cathedral, occupying a commanding position on Stag Hill and one of only two Anglican Cathedrals to be built in Britain since the Reformation, gives Guildford the right to call itself a city.

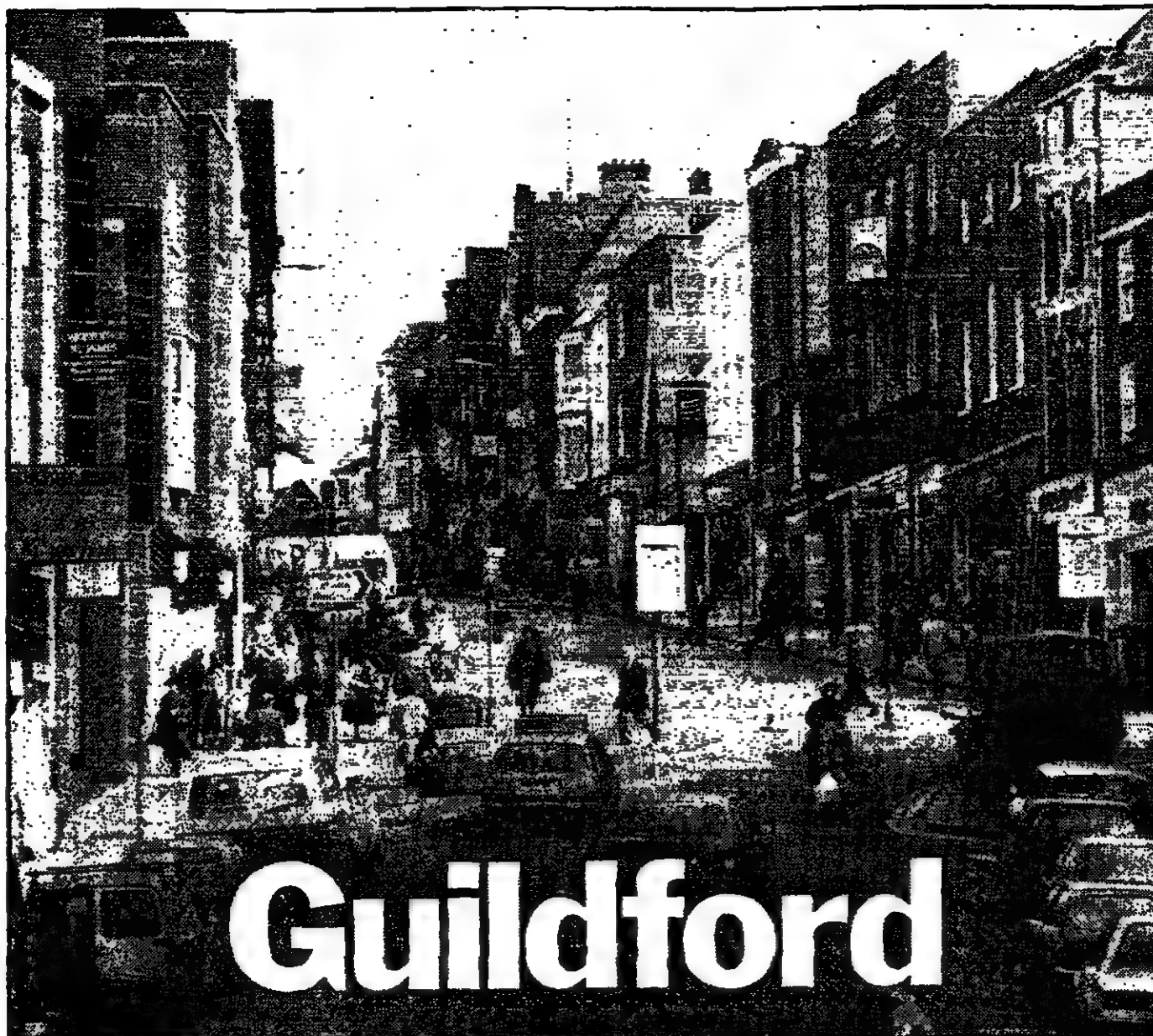
That word's other connotations are also partly borne out in the increasing levels of business activity in the area. Nevertheless, Guildford still jealously guards its county town ambience, intent on maintaining its mellow Georgian character in an age when the tide of redevelopment has swept through other Surrey centres closer to London.

Guildford's origins can be traced back to the 12th century when the castle was built by Henry II. Other links with the past include the Royal Grammar School founded in 1507 and the Guild Hall, with its prominent clock dating from Tudor times.

But much of the borough is taken up by fiercely-protected Green Belt, its landscape altered little for centuries save for the large, stockbroker belt homes.

Its quandary, then, is a classic one for a town of its size, how to absorb some of the pressures building up as companies look at alternatives to the high costs and restrictions of London accommodation, while retaining its unique character.

Guildford, at the same time, has experienced a shift away from manufacturing to service industries, a movement it is now trying to stem, while retaining a small, but buoyant engineering sector, represented by such companies as vehicle producer Hestair Dennis, and Vokes Engineering, making filters and



Guildford's steep High Street, now traffic free during shopping hours

bellows. Improvements to communications have attracted increasingly heavy overtures from developers. The dual-carriageway A3 provides rapid access to junction 10 of the M25, which in turn offers motorway connections directly to both Heathrow and Gatwick airports, putting them within a journey time of 30 minutes. The fast and frequent train service to Central London has a fastest journey time of 34 minutes.

Such accessibility, together with a readily-available pool of qualified staff, has already prompted a number of companies to relocate their headquarters from London or elsewhere in the home counties. For example, the Hays Group, one of the top ten private companies in the UK, moved its head office from the capital in 1984, while pharmaceutical company Sterling-Winthrop has transferred its head office from Surbiton. Other national

organisations in Guildford include Cornhill Insurance, which has had a presence in the town since the 1940s.

Further evidence of the buoyancy of Guildford's commercial sector is the slow, but determined growth in the provision of financial services. Bankers have for some time indicated the need for a big-eight firm in the town to provide professional advice locally for companies in the area and there has been a response.

Peat Marwick McLintock has become the first, and so far the only major accountancy firm to set up an office. The corporate finance and management consultants 3i are also setting up a branch.

Established since July last year, Peat Marwick offers not only auditing, accounting and tax services, but also more specialist services, currently acting for managers in a potential management buyout, for example: advising companies

seeking to float their shares on the Unlisted Securities Market, as well as establishing a business service department to serve the smaller but growing company.

But the council has put strict limits on the amount of office development. It is prepared to consider confining any major schemes to a well-defined area in Guildford's centre and at the same time seeking to ensure that the occupier of any new block is already based in the county.

Mixed use schemes, which provide some kind of benefit to the community as part of the development, are generally favoured. The overall policy of restraint is now being tested by one developer, who has been granted a 40,000 sq ft scheme just outside the zone.

Housing developers have also tried their luck in the past. "We are fighting appeals all the time against planning applications for housing in the Green Belt

That pressure, as land in the borough becomes scarcer, is not going to abate," says Mr David Wallis, chief executive of Guildford Borough Council.

"We supported the concept of the M25 because it would draw traffic off roads for which they were not designed. But it has led to more pressure than anyone thought possible. So far we have been able to resist it." Not, it must be said, without the support of planning inspectors and the Secretary of State for the Environment.

Completion of the M25 has also had a marked effect on residential property values, and there is concern that young people may find it difficult to stay in the borough where they were born and brought up. There are already 8,000 local authority homes, with plans for more, capital spending restrictions permitting.

The council has also recognised the need for more homes at the lower cost end, and is

Population: 125,300

Local authorities: Guildford Borough Council, Millersmead, Guildford, GU2 5BB. Tel 0483 505050  
Surrey County Council: Tel 01-549 8111  
University: University of Surrey, Stag Hill, Guildford Tel 0483 509236  
Survey Research Park: Tel 0483 579693 or 579787 Contact: Dr Malcolm Parry  
National Research Establishments: Animal Virus Research Institute, Ash

Road, Pitbright - Tel Worpleston 235331

Ministry of Agriculture, Fisheries and Food: Epsom Road, Guildford Tel 0483 681221

Chamber of Commerce: Tel 0483 37449 Contact: Director Barbara Smith

Enterprise Agencies: Surrey Business Enterprise Tel 0483 506969  
Development Status: non-assisted  
Nearest international airports: Heathrow, Gatwick

trying to ease the shortage through shared ownership schemes. One of 18 units on an infill site in a Green Belt village is nearing completion, while another development of 50 units is about to begin.

The council is trying to ensure that accommodation available in Guildford matches the number of jobs likely to be created, and believes that the soundness of its calculations is one reason behind its success in winning appeals against refusals of permission for major housing development.

It is adamant also that no development should be allowed which would put a strain on Guildford's infrastructure in general. "We don't want to see things stagnate, but it is a fine balance," Mr Wallis says.

There was some initial concern that the 68-acre Surrey Research Park now rapidly taking shape near Surrey University, might tip the scales. While the activities of companies on the park are strictly confined to research allied to the work of the university, it is recognised, and indeed hoped, that some of the results of research may spawn companies which can develop ideas and prototypes into marketable products. There is already increasing interest in developing Guildford's high-tech sector.

This is reflected partly in proposals from institutional investors for suitable high-tech units. London & Edinburgh Trust, for example, bought a 14.5-acre site formerly occupied by vehicle builders Hestair Dennis, where it intends to build 300,000 sq ft of light industrial space, ranging from 50,000 to 100,000 sq ft, with 1,200 car parking spaces.

The first phase, being funded by Crown Estate Commissioners, will be ready for occupation early next year. LET is already having discussions with the university about the possibility of providing overalls for the companies on the research park.

Close to the LET development, Crown Co Holdings, a joint company between Crown-gap and the Co-operative Wholesale Society, has obtained outline planning permission for 56,000 sq ft of high-tech industrial space. Construction will start by the end of this year, it draws the line.

once the CWS dairy has been relocated.

Crown Co has also just submitted a detailed planning application for 36,000 sq ft of light industrial space, hoping to start work early this summer.

The council believes there is generally a match between the skills required by new and existing industries and those available, helping to explain the level of unemployment, which, at six per cent, is low even by Surrey standards. If anything, there are more job opportunities than youngsters who want to take them up.

"There are a lot of training and retraining opportunities in the town but they are not being fully utilised," says Barbara Smith, director of the Guildford and District Chamber of Commerce. Last year the chamber carried out a survey which showed that there were not enough young unemployed in the town to warrant it taking on the management of the local YTS scheme. Of 200 companies surveyed, half were looking for trainees.

"A lot of youngsters either get jobs in the City or go on to higher education. The biggest gap of expertise is on the secretarial side. Skilled tradesmen are also in short supply."

According to Dr James McNeill, director of the Surrey Business Enterprise, the majority of start-ups are in the service and retail sectors, especially speciality type shops.

He says: "The tremendous turnover of retail premises in the centre of Guildford reflects the level of rates and rents. Space is at a premium and so there is a *prima facie* attraction to go out of town and set up close to the main roads. There is concern at the damage that could do to the town centre."

The council has also recognised this possibility. It allowed a Sainsbury's superstore on the outskirts, and may yet come out in favour of an out-of-town hypermarket development, the first of its kind in Surrey, though it is still assessing the impact this may have on the central shopping area. There, however, it draws the line.

### Industry

## A wide range of skills

**SMOKE STACKS**, perhaps predictably, are absent from Guildford's industrial landscape. There is, nevertheless, a substantial core of companies engaged in activities which might more readily be associated with the traditional engineering centres of the north.

One such is Vokes Engineering, the largest engineering employer in Guildford. With a staff of 500, including 300 shop floor employees, it makes air filters, liquid filters, process micro filters and bellows expansion joints. The company has been based near the town since 1942, and now occupies a 60,000 sq ft site.

Mr Julian Griffiths, Vokes' marketing director, says: "There is a range of diversified engineering skills here, in welding, fabrication and machining which is perhaps uncommon for the south east of England." The company recruits most of its staff locally, while specialists are brought in from outside the area, when they are needed. "There is no great shortage in

Guildford of the sort of people we need, though we do have difficulty attracting specialists because of the cost of housing in the area."

Vokes, part of the BTR group, and with an annual turnover of £20m, also works closely with Surrey University on ad hoc research projects, while it has made considerable improvements to its Guildford plant, investing several hundred thousand pounds on a new paint line to improve the corrosion resistance of its products. A new plant was opened recently to produce micro filters for use in the pharmaceutical and semiconductor industries.

Vokes' main customers include British Rail, the Royal Navy, the CEBG and the Hawker Siddely group and the company also sources most of its raw materials outside the immediate Guildford area.

But, says Mr Griffiths, completion of the M25 has "made communications to virtually any part of the country as good as anywhere else." The company uses a carrier for regular national distribution to its main customers, many of which are concentrated in the Midlands and the North of England.

It might also come as something of a surprise to find a vehicle manufacturer in the town. Hestair Dennis, though it moved the production of its dust carts to the Midlands, has retained both its fire appliance and bus and coach activities in Guildford.

Part of the Hestair group, now the largest wholly-owned UK commercial vehicle producer, Dennis Specialist Vehicles recently transferred to a new factory from the site next door where it had been for 70 years. Last year £1m was invested in new plant and computer systems in the 125,000 sq ft factory, in anticipation of substantial growth in the company's share of both the fire appliance and bus and coach markets. It has dominated the UK fire appliance market, taking a more than 50 per cent share.

While deregulation has hit the purchasing power of bus operators, the company is now directing its sales efforts increasingly overseas, recently securing an order from Hong Kong for some 1,000 vehicles. Export turnover last year increased by 40 per cent. In the UK, Dennis Specialist Vehicles has developed new products aimed at the independent coach and tour operators, having improved its design and development capability by installing a £0.5m computer system four years ago.

"We're looking for increased efficiency all the time," says Mr Steve Burton, managing director of Dennis Specialist

Vehicles. "The head count inevitably has fallen with increased productivity, but in Guildford workers are more realistic about the need for changes in work practices than they might be in the Midlands." The company now employs 300 in the town, with 120 involved in assembly.

The number of employees is likely to increase next year, combined with continued improvements to the productivity of the existing workforce. "In the south-east, there isn't an abundance of suitable people on tap, but we are able to attract skilled technicians, though labour turnover is very low," Mr Burton says. The company also offers trade apprenticeships, while running a training unit for both its own staff and for customers.

The supply of parts presents little difficulty, he says. Overnight freight services have enabled components to go out more quickly while some parts, such as special switches, come from the US and so arrive in the South East anyway. "With our computer systems and management controls we are able to plan ahead and keep tight tabs on our inventory and stock levels."

With the company increasing its level of exports, it also benefits from its proximity to Southampton.

Merrychef, the sole producer of microwave ovens in the EEC aimed primarily at the commercial catering sector, also says that communications are one of the major advantages of being based in the area, both for shipping finished products and bringing in components, and for customers visiting its demonstration centre. It also co-operates with Surrey University on development work.

The company, formed in 1983 with 30 staff after a management buyout, now has an annual turnover of £2m, employs 70 and is seeking to expand from its present one-acre site on one of Guildford's industrial estates. It has been seeking to broaden its product range, this year spending £150,000 on research and development, a one-third increase on last year. The company sees major growth potential for exports, primarily to Europe and is trying to enlist UK government support against dumping by Japanese manufacturers.

With its requirement for largely specialist skills, however, the company says that a disadvantage of being located in the area is the high cost of housing for anyone joining from outside the South East.

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## GUILDFORD 2

## Retailing

## Treading a tightrope

IT IS CLEAR from the level of Zone A rents alone that Surrey, and Guildford in particular, faces increasing pressure for retail space appropriate for the 1990s and beyond. But the city is treading a tightrope. It is going some way towards meeting these pressures, while ensuring that its historic town centre remains intact as far as possible.

Guildford is resisting any major increase in shopping floorspace in its centre. The Friary Centre scheme, completed seven years ago, boosted the total from 1.8m sq ft to just under 2m sq ft. Much of the emphasis in the centre and along the High Street is now on refurbishment and redevelopment.

The two-storey 45,000 sq ft White Lion Walk shopping mall, completed last year, is indicative of the buoyancy of the retail sector and of modern trends in shopping.

Built jointly by Tarmac Properties and Claydon Properties, and funded by Post Office, the mall replaced a Woolworths store and actually involved a net loss in retail floorspace. Zone A rents for High Street frontages are 250 a sq ft, with North Street frontages achieving 275 a sq ft and mall units fetching 255.

The covered centre, which last year won the British Council of Shopping Centres Small Centre Award, is built around a central atrium, and has 27 units on the ground floor and nine at gallery level. Next, the largest single occupier, took five units totalling 5,000 sq ft, including a restaurant.

Claydon Properties now has plans to redevelop the old Perrins Furniture Store, which it purchased three months ago. The 30,000 sq ft scheme, adjacent to White Lion Walk, is likely to go to a single occupier, according to agents Hammond Phillips.

Hammond Phillips has also secured the "rather faceless" late 1960s Tinsgate Square, for Lynton Holdings. It plans to completely refurbish this shopping mall of 20 units, totalling 60,000 sq ft, with the aim of re-letting as quality, specialist fashion retailing.

But Guildford also faces pressure for more out-of-town retail developments. It gave Sainsbury's permission for a food superstore at Burpham, with a sales area of 32,000 sq ft, opened in October 1985. Such a scheme, it was believed, would have a limited impact on convenience shops in the town centre, local centres and villages, at the same time easing congestion in the town centre, but there the local plan draws the line.

Sainsbury's itself believes that the superstore complements its existing outlet in the town centre, where it has been trading since 1966, with many of the new customers arriving by car from a four-mile radius for weekly and monthly shopping.

Guildford Borough Council has set itself against any large scale development of retail warehouses outside the town centre, but is prepared to make an exception for a limited warehouse development beyond the strict guidelines set out in the plan. Arundel House Securities has submitted an outline propo-

sition for a scheme of not more than 160,000 sq ft of non-food retail floor space, and its appeal against a delay by the council in making up its mind whether to allow the total scheme or any of the minor schemes proposed is due to be heard in June.

The 12-acre site is at present occupied by a Unigate milk distribution depot and vehicle maintenance centre, housing and small businesses accommodated in old farm buildings.

The application, one of nine received for the site close to the A2, is for a comprehensive redevelopment, to include a 50,000 sq ft DIY store and 15,000 sq ft garden centre for B&Q, and a 40,000 sq ft DIY store and 20,000 sq ft garden centre for Sainsbury's Homebase, with a further 70,000 sq ft of as yet unspecified retail space.

It is likely that 1,000 car parking spaces would be provided, the stores having a population of a quarter of a million within a 20-minute drive. Its drawing power would indeed be considerable with the county lacking any comparable scheme.

Part of the issue is whether the site should be retained for industrial use, for which it is at present designated. Also in question is the impact such a development would have on Guildford town centre.

The council has completed a study, which has not yet been made public. But the Surrey structure plan has given qualified approval to out-of-town stores offering high bulk, relatively low-value goods, "other things being equal."

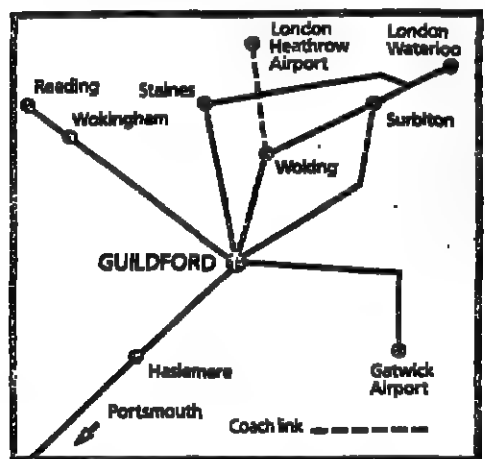


White Lion Walk: Guildford's latest shopping centre, and an indication of the current buoyancy of the retail sector.

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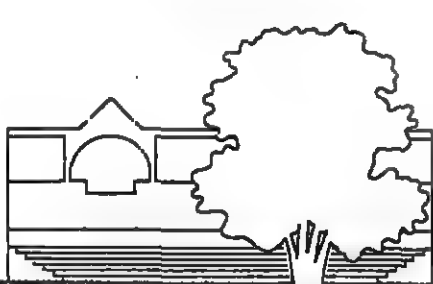
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## Offices

## Development restrictions put to the test

GUILDFORD'S policy on office development is likely to be tested by a current appeal. Developers are contesting a refusal of permission for 40,000 sq ft, just outside the area designated by the council. At the heart of the town's concern is the ability of its infrastructure to cope with rampant development, reflected in the borough council's attempts to restrict the occupiers of any new schemes to companies already based in the county.

However, within the area allocated for offices, developers are pressing ahead with a number of schemes. An application from Tarmac and Crampin Fring for 50,000 sq ft of offices on the site at present occupied by the mainline station is due to be determined shortly.

By the River Wey, a number of developments are under construction or planned, including 58,000 sq ft of offices scheduled to come on to the market at the end of last month; an area allocated for a 50,000 sq ft development on the former Cusker Street Bus Station site for which the council is seeking proposals to link with an adjacent mixed use scheme, with museum, restaurant, public house, public open space and auditorium; and a site allocated for 20,000 sq ft of offices, planned to start in 1990.

The council is also inviting proposals for a mixed-use scheme on a site opposite the Friary shopping centre, to include 19,000 sq ft of offices. There are, in addition, a number of opportunities for redevelopment of existing offices. Opposite the station, for example, a 40,000 sq ft office building lies empty, while an 2m sq ft mixed-use scheme by Farmcote Developments, part of Tarmac Properties on the site of the former Council offices at the top end of the High Street, was recently accepted.

This will include 29,000 sq ft of offices, with a single block of 25,000 sq ft and a number of office suites—the developers are looking to achieve upwards of 215 a sq ft; 5,500 sq ft of retail, with Zone A rents of £25 expected; and seven "town houses."

The council's aim that any major new occupiers should already be based in Surrey was technically breached when the pharmaceutical company, Sterling-Winthrop, moved its headquarters to the town. Formerly in Surbiton, just across the border in Greater London, most of its staff already lived within easy commuting distance of Guildford.

It was unable to find premises of sufficient size in Surbiton to allow for expansion, and now occupies 100,000 sq ft. Its 400 employees, particularly secretarial staff, are involved mainly in administration and marketing, while the rest of its 3,200 UK employees work at a factory and research centre near Newcastle, and another factory in Sheffield.

Almost all management made the move, completed in 1984, while only 5 per cent of clerical staff came to Guildford. The company chose the town because of the pool of skilled workers, particularly secretarial staff, while it has also attracted some staff who had been commuting to London.

However, when promoting from within the group the company has had to consider offering relocation packages because of the relatively high cost of housing in the area.

House prices have also affected recruitment by the Ministry of Agriculture, Fisheries and Food, with its national computer centre in the town. The Civil Service Commission occasionally advertises locally. "The people who already live around here are probably more realistic about the sort of mortgages they might need to take out," says Mr John Ruffhead of MAFF.

The 300 employees at the centre, which has been in Guildford since the mid-1960s and now occupies 42,000 sq m, are split between programmers and systems analysts. Its mainframe computer is linked to headquarters in London and the Ministry's five regional offices via dedicated landlines, for the processing of grant payments, agricultural censuses, cattle breeding statistics, marketing schemes and other data.

While staff of executive officer level and above are normally recruited nationally, administrative staff are sought locally. "We are in competition with the other major employers in the town, but are subject to normal government guidelines on pay," Mr Ruffhead says.

Cornhill Insurance reports that housing costs can prove daunting for specialists recruited from elsewhere in the UK, but that it has no difficulty in filling clerical vacancies locally.

One of the main advantages of centralising its administration and underwriting in Guildford, rather than London, is that staff who live in its small catchment area "find it easier to travel to work and perform an awful lot better," says Mr Geoff

Mayhew, of Cornhill.

The insurance company, which was taken over by Allianz of West Germany last year, moved to its present site in 1954, and is currently carrying out redevelopment to provide it with total office space of 122,000 sq ft. It also has 42 offices throughout the UK, employing more than 2,400. Total staff numbers increased by 5 per cent last year, and it expects to take on more staff in Guildford.

The mainframe computer is linked by land lines to the 26 main branch offices. "There is no need to be in the centre of London. We are close enough to be able to use it if we have to and still maintain a branch office in the City to deal with inquiries from intermediaries," Mr Mayhew says.

Where possible, the council has sought to achieve some kind of planning gain from office developments. So it was with the Hays Group which moved its headquarters to the town in 1984. It built 30,000 sq ft of offices on the site of an old warehouse, looking on to the River Wey, letting out one floor.

Half the site is now being made over to public gardens. "That was a condition of planning permission, a very sensible attitude for the council to take," says Mr Ronnie Frost, the group's managing director and chief executive.

Hays, with a turnover last year of more than £800m, decided to move out of London, where it had been for 300 years, when the building it occupied fell within the area due for redevelopment as part of the London Bridge City scheme.

It employs 5,000 people scattered across the UK and in subsidiaries in the US, Germany, Belgium and Australia, and is involved in a range of activities from transport and distribution to chemicals. Its need when it moved to Guildford was for quick access to airports, an efficient train service to London, and proximity to the motorway network.

The Guildford office is its nerve centre, from where accountants and financial experts monitor the group's activities. "We also wanted to be somewhere which would attract good quality staff," Mr Frost says. "House prices in the area do sometimes worry us, but because we are a head office operation, we are able to pay salaries which in part compensate."



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## University of Surrey

## Strong links with industry

THE LINK between the University of Surrey and industry may not be immediately apparent, set as the campus is on the rolling hills that shelter Guildford and immediately adjoining the Cathedral. But as the university is quick to emphasise: "There are no towers, let alone ivories ones, here. It is a campus where feet are firmly on the ground."

The university traces its roots back to the 1890s when it originated as an offshoot of Battersea Polytechnic, but has existed as a university only since 1966. In the ensuing 25 years it has forged strong and varied links with industry at all levels of academic activity.

Undergraduate study is designed specifically to meet the needs of industry, reflected perhaps in Surrey's consistently good showing in the graduate employment league. It was one of the first universities committed to the integrated sandwich system, and all students spend their third year on on-the-job training, in the UK or abroad. Senior industrialists are appointed as honorary, visiting staff and help to plan courses. The university, together with RAL Electronics, recently won first prize in the DTI award scheme designed to highlight outstanding examples of industry/university collaboration in course development.

Another example is a course in biotechnology, with industry also meeting part of the cost of the £1.3m Wolfson Cytotechnology Laboratory. When complete it will be the largest animal cell tissue culture laboratory in Europe.

Many of the initiatives have sprung from the university's Bureau of Industrial and External Liaison. "The university's activities are specifically designed to provide support for industry and the professions," says Mr James Reed, BIEL's director. The way they are promoted at Surrey is more coordinated than at many other higher UK education institutions, he believes.

One of the latest initiatives is the setting up of the Surrey Network, a "club" designed to channel inquiries from industry to the appropriate academics. A crucial decision was that the network's structure should not just replicate the structure of the university. So the eight "nodes" define categories of problem, fields of interest, or interlocking technologies that subscribers would see as being relevant to them, providing, in effect, one-stop consultancy.

The club, with members already including Shell, GKN, BOC and Grand Metropolitan, had a turnover in its first year of more than £55,000. Companies subscribe on a scale, the more intensive the collaboration, the more they pay. In return for its initial subscription, the company receives a regular newsletter, access to library, computing and consultancy services, and seminars, advice on investment in technology and visits from specialists. "The spin-off for the university comes from increasing interaction which can and is already leading to both contract and blue sky research," Mr Reed says.

The bureau has also established a support unit to help "university companies" grow,



The university's Surrey Research Park: inspecting the laser plot of a printed circuit board at CMM Design and Laser Plotting Bureau.

locate funding, and aims eventually to provide a full range of business support services. There are already 11 such companies based on the campus, formed by academic staff as spin-offs from university research, with a handful showing signs that they will earn substantial sums for the university in the future. The most promising are in the fields of civil engineering, medical diagnostics and biotechnology.

The university takes a majority shareholding, owns any industrial property rights, and is well represented on the management team, but the academics, who do this work in the vacations and while meeting their normal teaching requirements, receive a share of the profits to enable them to extend research.

The intention is eventually to accommodate some of these university companies on the Surrey Research Park, taking shape on a 70-acre site close to the main campus, and believed to be the fastest growing of the 31 university-based science parks in the UK.

Since construction began in 1984, over 200,000 sq ft of space has been built and is now occupied, and the infrastructure to service the whole site has been

installed. A further 120,000 sq ft is now under construction, of which half is pre-let.

The park is moving towards fulfilling the objectives set out when the concept was conceived in 1979, says Dr Anthony Kelly, the Vice-Chancellor. These were to extend the university's interaction with research and development scientists and engineers based in industry; to create a centre of research, development and technical expertise linked with the university; and to provide some independent income. It is already achieving the highest rents of any UK science park.

Companies occupying the Phase I development include BOC (UK), with 120,000 sq ft, Grand Metropolitan running the 19,000 sq ft Grand Metropolitan Innovation Development Centre, with small units aimed specifically at young technology companies. BP occupying 16,000 sq ft as well as eight other high technology companies.

Collaboration between park occupiers and the university has been generated through the Surrey Network. They each have automatic membership of SUNET, while research contracts and consultancy valued at

more than £120,000 have so far been channelled into three university departments.

"Set against the university's overall research income of over £7m this is, as yet, a small volume of business," Dr Kelly says. "But with a further 15 companies now showing an interest in the park, by the end of 1988 we will have formed even more fruitful links." Three of the major occupiers of the next phase have already placed research contracts with Surrey.

Of greatest significance, so far, is the funding by BOC of a process engineering and biotechnology, and collaboration on a major research project in novel techniques of gas separation. All six occupiers of the university's own Chancellor Court development are also working with the university on projects.

According to Dr Malcolm Parry, the park's marketing and liaison director: "The park, on university-owned land, has been developed without an outside partner, and is managed in-house. That helps explain the degree of commitment and direction to the project." The Vice-Chancellor, University Secretary, development director and Dr Parry meet once a week, reporting from time to time to a "board of directors."

Dr Parry believes that the park's modus operandi has made possible also a more flexible attitude to lease terms. "Whereas a pension fund would insist on strong covenants and a minimum 25-year lease, we can offer shorter-term leases. We will accept any company, provided it is involved in a relevant 'knowledge-based activity' and financially stable."

In letting the 60,000 sq ft of speculative building now under construction, there is very strong interest, particularly from small, fast-growing companies in electronics and computing. Phase II, with rents at £11.50 sq ft, offers either smaller units of 1,000 to 4,000 sq ft on short leases, or larger individual buildings of 8,700 and 9,300 sq ft on normal 25-year leases. It is perhaps a measure of the park's success that banks have offered unsecured loans for the construction of Phase II though loans for the construction of the speculative buildings are being secured against land or existing units on the park.

But not to be forgotten is the club set up by Surrey for the managing directors of local businesses, promoting research collaboration and providing help for local companies with computer-aided manufacturing techniques.

## Andrew Baxter on living in Guildford

## An enhanced cultural life

LIKE any other large town, Guildford has its admirers and detractors. It is a place to live, work or merely visit for leisure inevitably vary.

Inhabitants can point to a range of attractive features and amenities, some of which could be more readily associated with a small city than what is, technically, a town. You can still go to the cinema, watch a play, enjoy a full range of recreations and dine out on virtually everything from fast to fine food, in a setting that has, by and large, retained its historic character while embracing most of life's modern conveniences.

Outsiders might look on the obvious trappings of affluence and general lack of social problems as a symbol of southern middle-class smugness. Others may remember it more for the rather forbidding cathedral perched on a hill overlooking the bypass, or recall the trouble they had parking when last they visited for Christmas shopping. Whatever the view, and there is some justification for both impressions, few would deny that, in terms of cultural and recreational amenities, and in other respects such as the provision of schools, shops and transport services, Guildford can offer an impressive list, both on its own and comparatively.

On the cultural side, a combination of commercial activities and those backed by the borough council and others ensures that few tastes are left uncatenated. In the theatre, the Yvonne Arnaud offers a wide variety of pre-West End and other productions, while the Bellerby Theatre, owned by the council, is leased out for use by local theatre groups.

The council is also developing a local community arts centre in co-operation with Guildford Amateur Theatre Association. At centre stage of the musical scene is the Guildford Philharmonic Orchestra, the official professional orchestra of the south-east. The symphony, founded in 1945, aims for regular inclusion of works by British composers and more adventurous programmes to complement the standard classical fare.

The GPO, which last year appointed Sir Charles Groves as principal conductor, gives concerts both outside Guildford and at the town's Civic Hall, a venue for everything from wrestling to amateur dramatics, and disco.

Elsewhere there is the Guildford Museum, now undergoing a renovation programme and actively seeking sponsorship.

and Guildford House art gallery, an attraction much for its 17th century Elizabeth Street building as for its exhibits. The gallery runs a loan scheme for a collection of oils, watercolours and prints.

The town's cultural life is also enhanced by the presence of Surrey University, although the campus, somewhat aloof position away from the centre makes contact between "town and gown" less easy than at some older universities. Still, the university's quarterly public exhibitions and films that are open to the public, provokes a very good response, according to the university.

The Surrey Society, formerly the Friends of Surrey University, runs many community events and wants to forge stronger links with Guildford and surrounding towns.

Apart from the amenities available throughout the year, the major event of the calendar is the Guildford Festival in the summer, which this year features everything from a Pageant of Monarchy to a Mad Hatters Tea Party.

Summer is also the season when one of Guildford's most attractive sporting venues comes into its own, a large open-air swimming pool set in parkland close to the town centre. A sports centre for swimming and other sports is open all the year, and along with most of the town's facilities is very well-used. A second sports centre and ice rink may be built, but no decisions have been taken.

The town has no Football League team, and the closest is Fourth Division Aldershot, but in the summer the Surrey county cricket team makes occasional visits.

For riding, walking and golf, the open country around the town and downlands on the outskirts represent a considerable attraction. In the centre, the riverside area is one of the prettiest, and a towpath walk to admire the barges and feed the ducks is a useful Sunday afternoon standby for families with young children.

The riverside is also the setting for a new 280-acre park which will focus on nature and the preservation of wildlife. The council's leisure and recreation division is currently in the unusual position of having three new parks to design—the other two are towards the outskirts of the town in areas which have seen considerable population growth.

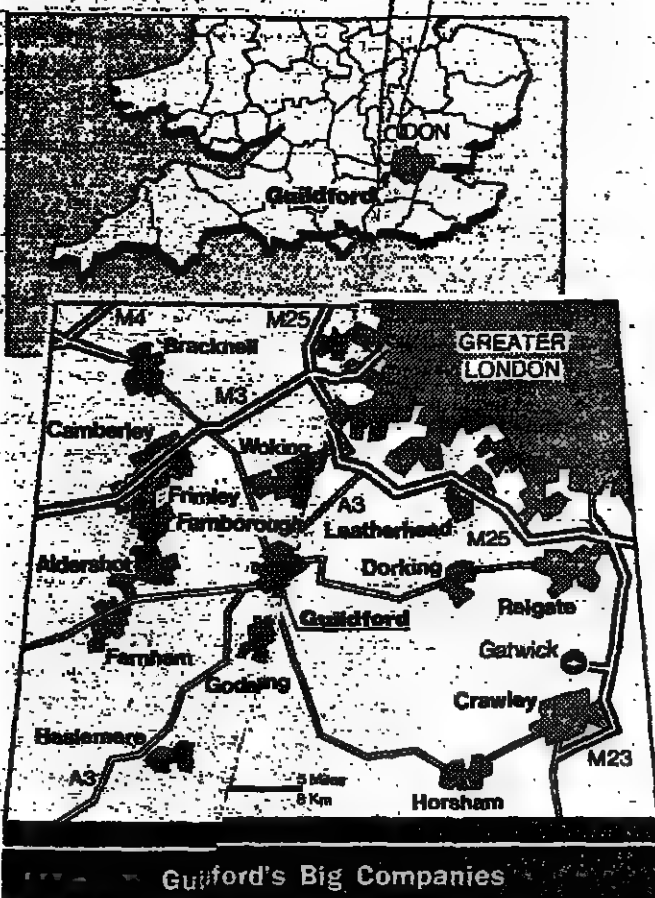
Completion of the parks should represent a considerable improvement to this aspect

of the town's recreational facilities.

Other features and advantages of Guildford as a place to live include the good reputation of the schools which extends to the state sector as well as to the historic Royal Grammar School. The town also has an independent radio station, County Sound, which aims to provide a genuinely local service, with emphasis on community involvement, as an alternative to the competing London-based stations.

On the negative side, the absence of a high quality library is surprising for a town of such a size and type. Also, given that environmental factors are a key element in the quality of life generally, the historic attractions of the town are in the short-term rather overshadowed by the tatters of the railway station and surrounding areas close to the town centre gyratory system. These sensitive sites are being, or are about to be, redeveloped, promising a better initial impression for the first-time visitor, and a more pleasant environment for commuters and shoppers.

These factors apart, there is a great deal to be said in the town's favour. This clearly is the view of some of Britain's more senior rock musicians who have their country estates nearby, but who can still be seen wheeling their shopping trolleys round Sainsbury's.



Guildford's Big Companies

Company	Turnover	Year	Sector
Mitchell Cals	377.2	6/86	Transport, Trading, Engineering
Stirling Whitmore	171.3	10/85	Pharmaceuticals
Schlumberger	165.4	12/85	Electronic Equipment
Braxell	99.8	12/85	Engineering
Farnham	88.0	5/86	Distribution
Hays Chemicals	88.0	6/86	Chemicals
Norman Industries	85.2	12/85	Elect. Engineering
BOC Transducers	57.7	9/86	Distribution
Career Care	41.8	3/86	Staff Bureau
Hestair Special Vehicles	34.4	1/86	Commercial Vehicles
Barratt	28.4	6/86	Building
Western United Investment	21.3	12/85	Leather Manufacturers
Building	13.9	12/85	Building
Hays Group	12.4	6/86	Shipping
Berkeley Group	11.4	4/86	Housebuilding

1. To Guildford-based Hays Group with a total turnover of £21.4m in transport, chemicals, business services, equipment and instrumentation, is part of St Helens Holdings, a Kuwaiti Government-owned company.  
Source: Jordans, Jordan House, Brunswick Place, London N1 6EE

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Elsewhere there is the Guildford Museum, now undergoing a renovation programme and actively seeking sponsorship.

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THE  
SURREY  
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PARK



British Oxygen, Grand Metropolitan and British Petroleum have all located scientific units on the Surrey Research Park over the last three years. Almost 200,000 sq ft of research and development accommodation has been built so far on the 70 acre Research Park and another 120,000 sq ft is under construction.

Many companies are realising the benefits of locating adjacent to one of the country's leading technological universities. Furthermore, Guildford is ideally located with access to the M25 nearby and Gatwick and Heathrow airports within half an hour's drive.

Phase II of the development offers self-contained buildings of 8,300 sq ft and 9,300 sq ft as well as small R & D units varying in size from 1,100 sq ft to 4,400 sq ft. Over 30 acres of land is still available on which to construct R & D Headquarters of up to 100,000 sq ft.

For further information contact Dr Malcolm Parry at the Research Park Office (0483-57963) or Andrew Heslegrave of Strutt and Parker (01-629 7282).

University of Surrey

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# US draws up trade war 'hit list'

By TIM DICKSON IN BRUSSELS

THE US Government is drawing up a detailed "hit list" of EC products which will be penalised if the Community adopts a new tax on vegetable and marine oils.

Opposition to the proposed tax—a key item in the European Commission's farm price package for 1987/88—has already been forced to express in Washington with the clear threat that retaliation will follow if EC Agriculture Ministers ultimately decide to go ahead with the tax. Up to now, however, the rhetoric has tended merely to dismiss the arguments put forward in Brussels and to highlight the possible damage to US soybean exports.

Proposals for an EC-wide oils

and fats tax have surfaced at least half a dozen times in the last 20 years but the latest so-called "stabilisation mechanism" has been put forward with greater conviction than before both because of the deteriorating position of the EC agricultural budget and because of the growing dependence of the EC on imports of oil and other agricultural products. The tax, which would be levied on crushers of all imported and domestically produced oil, is expected to raise an additional Ecu 2.3bn.

The US Government's preparation of a detailed battle plan is designed to step up the diplomatic pressure ahead of next week's Venice Summit, the crucial EC Farm Council on

June 15, and the meeting of European heads of State in Brussels at the end of this month, when many observers believe the issue will finally be resolved. The "hit list" tactic was last used with considerable success earlier this year during the heated confrontation between the US and the EC over the loss of US grain exports following the accession of Spain and Portugal. The early release of a list on that occasion is thought to have played a part in the final compromise.

This time, however, given the strong opposition to the oils and fats proposal from at least three EC member states, Washington is keen not to inflame passions by revealing the

individual Community products in the firing line. US officials are confident that Britain, the Netherlands and West Germany are solidly against the Commission's plan—an alliance sufficient in itself to form a "blocking minority" in the Council and discouraged that attempts last month to "buy off" Portuguese and Danish hostility appeared to have little or no impact. The American self-interest is clear. The US sells almost half of its oilseed exports and 85 per cent of its exports of fish oil to the EC. Between 1984 and 1985 the value of the country's oilseed exports averaged \$1.8bn—a volume of trade which officials in Washington maintained would fall as a result of the EC action.

## Lead and zinc workers vote to continue strike

By Stefan Wagstyl

A SURPRISE vote by workers at Cominco, the Canadian mining group, to reject a settlement plan yesterday pushed up lead and zinc prices. Some 2,800 workers at Trail, British Columbia, narrowly rejected a tentative three-year pay and conditions agreement previously initiated by their trade union representatives and by the company.

The complex has been shut down since May 9 when the workers along with 600 office staff went on strike. The manual workers' union representatives said the tentative agreement had been rejected by 54.5 per cent of the members. They tended to reopen talks with Cominco.

The office staff broke off negotiations on May 31. On the London Metal Exchange, lead for immediate delivery came higher at \$418.50 a tonne. Zinc finished \$22.25 up at \$218.75 a tonne.

**LONDON METAL EXCHANGE**  
WAREHOUSE STOCKS  
(Change during week ending last Friday)  
(tonnes)

Aluminium +5,425 to 184,475  
Copper +3,725 to 109,900  
Lead +450 to 15,875  
Nickel +1,884 to 4,562  
Tin -40 to 28,005  
Zinc +775 to 32,425  
(ounces)  
Silver unchanged at 22,288,000

## Peruvian miners in protest against trade restriction

By DOREN GILLESPIE IN LIMA

PERUVIAN MINERS are protesting against Government marketing restrictions giving Minpeco, the state marketing company, the power to take over any metals contract signed between May 23 this year and the end of 1988.

A full-page advertisement, published in El Comercio, the leading daily, by the National Mining Society, calls the restriction

"unconstitutional." It also says the measure creates a "virtual monopoly" for Minpeco. Miners say that Minpeco's newly acquired right to substitute for buyers in contracts eliminates the possibility of negotiating a firm offer, since Minpeco, which receives full information of the terms agreed, has 10 days in which

to take over the contract. This is reduced to two days for spot sales. Miners and traders additionally have been given up to June 6 to present details of all existing contracts to the Ministry of Energy and Mines. The new regulations require shippers to obtain a visa from the Ministry before metals shipments can be authorised.

## Brazil seeks wider coffee market

By ANN CHARLES IN SAO PAULO

BRAZIL IS keen to see its coffee traded on the world's leading futures markets in order to improve liquidity and facilitate recovery of market share following the crop setback caused by the 1985 drought.

At an international conference in Rio de Janeiro last week Mr Jorio Dauster, president of the Brazilian Coffee Institute, specifically mentioned that Brazil would welcome a resurrection of the New York "B" contract and the creation of a Brazilian "cannon" robusta futures contract in London.

Both exchanges have been reluctant to offer futures trading for Brazilian coffee, given what is described as a lack of credibility in Brazil's coffee poli-

cies and pricing, which historically have included special deals with favoured buyers, making pricing less than open, and restricting the availability of registrations.

Given past resistance from foreign exchanges to futures contracts on Brazilian coffee, Mr Dauster revealed IBC's interest in the possibility of hard currency contracts, probably in US dollars, to be negotiated on Brazilian futures exchange.

According to a major Brazilian broker, to make such trading possible, the Ministry of Finance would have to declare certain warehouses offshore freeports for coffee deliveries and international clearing houses outside Brazil would have to be asked to do the

actual liquidation, given the current Brazilian moratorium, in effect, which hampers international confidence and currency transactions.

Other hurdles, such as certification of coffee grades, would also have to be cleared, but technically Brazil has the infrastructure in its commodities and futures exchanges, communications, and brokerage houses to move into an international arena.

Resistance domestically comes from Government sectors that fear loss of exchange control with futures contracts open to Brazilian firms which currently are permitted only to sell. Hedging is difficult if it is only one-sided with no buying permitted.

## Grain surplus problems persist

ACCORDING TO Eurostat, the EC statistical service, this year's Community cereal harvest could increase by 15 per cent to 173m tonnes. This, of course, is a guess which could well be invalidated by the weather between now and September. But in general European crops are said to be looking well and the Spanish harvest, which has already started, should be substantially higher than the drought-affected crop of last year.

These estimates have been disputed by traders in Europe, and they contrast with forecasts for the main non-EC exporting countries, which indicate that there could be some reduction of output, particularly from Australia. All in all though it does seem that world markets will be under at least as much pressure from heavy stocks as in recent years.

The UK harvest is at least 6 weeks away but cereal crops are looking weed-free and at least as well as they did at this time last year. The rain last weekend will have done them nothing but help. The Home Grown Cereals Authority (HGCA), which estimated the 1986 harvest at about 25m tonnes, is putting this year's at between 22.3m and 26.3m tonnes.

As UK use of home-grown cereals is between 15 to 20m tonnes a year there could be a disposable surplus of 5m to 7m tonnes for export or sale into intervention stores. This, added to surplus stocks in the rest of the EC, could lead to formidable storage and financial problems.

Last December, in the dying days of the British presidency of the Council of Ministers, a reform package aimed at reducing the cost of the cereal sector proposed stringent restrictions

## FARMER'S VIEWPOINT

By John Cherrington

on intervention buying. These would have made it very difficult indeed for farmers to place grain in intervention and would have removed the basic price guarantee on which farmers rely, leaving them to the mercy of a glutted market.

This has not been accepted by the Council as yet, and Ministers are unlikely to agree anything before the British and Italian elections. In any case the French and Germans are said to be adamantly against any interference with the present intervention system.

But it does seem that less reliance is going to be placed on intervention as a means of price support in the future, at least in the UK. It has become known that at least 40 per cent of the storage capacity which has been booked in previous years for UK intervention stores has not been rebooked this year. This follows a remarkable UK export record during the 1986-87 season. Until the end of April some 5.7m tonnes of cereals had been exported and the total is expected to rise to over 10m by the end of the year.

This has reduced total intervention stocks of wheat and barley from 5.46m to 2.43m tonnes by May 25. The reduction of 2m tonnes was exported and the balance sold on the home market. Exports kept the home market clear and only 100,000 tonnes of grain was taken into intervention stores.

This export success was due to several factors which may not operate to the UK's advantage again. Spain imported 1.4m tonnes of UK wheat and barley (up from a negligible figure in the previous year and Italy, which suffered quite badly from the same drought, bought an extra 600,000 tonnes or so. In addition, there were substantial sales to the Soviet Union and Saudi Arabia. These were assisted by the weakness of sterling against the European currency unit, which enabled traders to put in competitive bids for export restrictions.

Currency factors also played a part in assisting the export of maling barley to continental destinations. This resulted in the best trade for maling barley that many of us have ever known. We have hopes that this will be repeated after this harvest, as the HGCA has just announced that sowings of spring barley are down by about 4 per cent as against last year. Most maling varieties are spring sown so there seems to be some basis for these hopes.

But probably the most important advantage has been the provision of grain export facilities to several British South and East Coast ports. This has meant that the continental, and particularly the Mediterranean, ports are more easily served from Britain than from many continental grain growing areas. And overland transport is

much more expensive than seaborne. One French trader of my acquaintance has invested in a new facility in southern France. Most of the big international shippers already have their own UK port facilities.

But there can be no trade without a price structure, which is lacking at the moment. This will depend on what happens to the intervention price and how it is administered. Most of the big international shippers already have their own UK port facilities. But there can be no trade without a price structure, which is lacking at the moment. This will depend on what happens to the intervention price and how it is administered. Most of the big international shippers already have their own UK port facilities.

This looks bad, but there is a joker in the pack. As part of the price negotiations Mr Jopling is arguing for a reduction in the monetary compensatory amount (MCA) which is designed to correct currency differences and acts as a levy on UK exports to other member states. Any reduction in the MCA levy should have the effect of raising UK farmers' incomes. Mr Jopling is demanding an overall 10 per cent reduction through a devaluation of the green pound, about half what the National Farmers' Union is arguing for.

But such a move is contrary to the British Government's policy of containing agricultural support costs, and discouraging excess production. Once the election is over it will be interesting to see which way Mr Jopling, or his successor, plays this one.

## Export subsidy delays anger British shippers

By JOHN BUCKLEY

UK GRAIN shippers are complaining bitterly that long delays in the payment of EC export subsidies by the British Intervention Board for Agricultural Products are not only wiping out their slender profit margins but making it tough to win new export orders.

The payments—without which it would be impossible to sell EC grain at a world price less than half its value—should in theory be made within a 28-day "target period."

Earlier this year, the payment delay widened to some six weeks and shippers reluctantly built this extra time into cash-flow calculations. But since then, things have got worse and some have now been waiting up to 14 weeks. "The gap has

widened by about 60 days which has hit us retroactively with a loss of something like £150 a tonne—on several hundred thousand tonnes that's no joke," said one multinational trader. "We have millions of pounds outstanding in late subsidy payments," he pointed out.

IBAP itself is suffering from a chronic staffing problem exacerbated by the westerly documentation that has accompanied the growth of UK exports from a little over 5m tonnes to more than 10m tonnes in the last two years. In fairness to the Board, nobody—the trade included—expected this startling upturn when the season began and IBAP has assured traders that the situation will improve by the year end.

"But in the meantime, other big crop on the way we feel farmers in particular and the export boom behind the logjam is under threat," said one source, who pointed out that "most grain traders only have to wait 15 days for their payments." "This disadvantages British grain and naturally makes some of us reluctant to do new export trade out of the UK to fill EC deficits."

Grain traders, led by the UK Grain & Feed Trade Association have suggested the UK Treasury should bridge the funding gap between the target period and the delay shippers actually have to endure. "UK exporters have done a superb job disposing of over 40 per cent of this season's grain crop against fierce competition. With an-

other big crop on the way we feel farmers in particular and the export boom behind the logjam is under threat," said one source, who pointed out that "most grain traders only have to wait 15 days for their payments." "This disadvantages British grain and naturally makes some of us reluctant to do new export trade out of the UK to fill EC deficits."

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## LONDON MARKETS

THE NEW London Metal Exchange dollar-denominated contract for high-grade (99.7 per cent purity) aluminium got off to a good start in the morning, with strong trading. Trading eased in the afternoon, but still closed with a premium of about \$120 a tonne over the sterling-denominated standard (99.5 per cent purity) contract, which fell by \$5.50 to \$265. The fall in LME warehouse stocks of nickel, against expectations of a rise, helped the underpinning sentiment in the market, which was steady in morning trading on the back of sterling's weakness. The stocks were 1,884 tonnes down at 4,962 tonnes. Prices drifted lower in the afternoon as sterling recovered, ending at session lows in full trading—still \$45 ahead for cash metal at \$2,660. Meanwhile, copper prices remained steady, with nearby months gaining support in response to the unsettled sterling exchange rate and a good New York market. Dealers said that the failure of the International Copper Organisation's buffer stock manager to buy copper had appeared to feed sentiment, rather than weaken it.

LME prices supplied by Amalgamated Metal Trading.

**ALUMINIUM**  
Official closing (am): Cash 974.5 (97.5), three months 929.0 (97.5), settlement 931.5 (97.5). Final Kerm class: 934.4. Turnover: 6,850 tonnes.

**COPPER**  
Official closing (am): Cash 950.5 (95.0), three months 929.0 (95.0), settlement 931.5 (95.0). Final Kerm class: 934.4. Turnover: 6,850 tonnes.

**LEAD**  
Official closing (am): Cash 429.5 (42.9), three months 374.5 (42.9), settlement 400.0 (42.9). Final Kerm class: 378.5. Turnover: 1,350 tonnes.

**NICKEL**  
Official closing (am): Cash 2,675.0 (267.5), three months 2,680.0 (268.0), settlement 2,680.0 (268.0). Final Kerm class: 2,680.0. Turnover: 1,350 tonnes.

**ZINC**  
Official closing (am): Cash 915.5 (91.5), three months 865.5 (91.5), settlement 870.0 (91.5). Final Kerm class: 870.0. Turnover: 1,350 tonnes.

**LONDON METAL EXCHANGE**  
TRADED OPTIONS  
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Lead 90.7% — — — — —  
Nickel 90.7% — — — — —  
Zinc 90.7% — — — — —

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Settlement: 444.4-444.4 (23.54g)  
Settlement: 444.4-444.4 (23.54g)

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Maple Leaf 444.4-444.4 (23.54g)  
Krugger 444.4-444.4 (23.54g)  
Britannia 444.4-444.4 (23.54g)  
New Sov. 444.4-444.4 (23.54g)  
Old Sov. 444.4-444.4 (23.54g)  
8.00 Eagle 444.4-444.4 (23.54g)  
8.00 Plat 444.4-444.4 (23.54g)

**COTTON**  
LYNNPOOL—Spot and shipment sales for the week commencing May 26 amounted to 50 tonnes against 335 tonnes in the previous week. Slow buying persisted with dealings in Sudanese varieties.

## INDICES

REUTERS

May 29 May 28 Mth ago Year ago  
1987.4 1986.5 1985.1 1984.2  
(Base: September 15 1981=100)

**DOW JONES**  
Dow Jones 128.52 128.22 128.13  
Put 128.52 128.51 128.16  
(Base: December 31 1961=100)

**MAIN PRICE CHANGES**  
June 1 + or -  
1987 - ago

**METALS**  
Aluminium Free Market: \$194,000 -10 (\$194,000)  
Cash Grade A: 974.5 -6.5 (\$978.0)  
5 months: 929.0 -6.5 (\$935.5)  
Settlement: 931.5 -6.5 (\$938.0)  
Lead Cash: 429.5 -2.5 (\$432.0)  
5 months: 374.5 -2.5 (\$377.0)  
Settlement: 400.0 -2.5 (\$397.5)  
Nickel Free Mkt: 2,675.0 -2.5 (\$2,677.5)  
Settlement: 2,680.0 -2.5 (\$2,682.5)  
Platinum 950.5 -15 (\$965.5)  
Gold 380.0 -1.5 (\$381.5)  
Silver 16.72 -0.01 (\$16.73)  
5 months: 16.72 -0.01 (\$16.73)  
Settlement: 16.72 -0.01 (\$16.73)  
Free Mkt: 16.72 -0.01 (\$16.73)  
Settlement: 16.72 -0.01 (\$16.73)  
Tin 16.72 -0.01 (\$16.73)  
Settlement: 16.72 -0.01 (\$16.73)  
Zinc 915.5 -1.5 (\$917.0)  
5 months: 865.5 -1.5 (\$867.0)  
Settlement: 870.0 -1.5 (\$871.5)  
Cocoa 1,840 -1.5 (\$1,841.5)  
Coffee 1,150 -1.5 (\$1,151.5)  
Rubber 1,150 -1.5 (\$1,151.5)  
Soybean 1,150 -1.5 (\$1,151.5)  
Wheat 1,150 -1.5 (\$1,151.5)  
Barley 1,150 -1.5 (\$1,151.5)  
Maize 1,150 -1.5 (\$1,151.5)  
Sorghum 1,150 -1.5 (\$1,151.5)  
Millet 1,150 -1.5 (\$1,151.5)  
Rice 1,150 -1.5 (\$1,151.5)  
Oats 1,150 -1.5 (\$1,151.5)  
Clover 1,150 -1.5 (\$1,151.5)  
Hay 1,150 -1.5 (\$1,151.5)  
Straw 1,150 -1.5 (\$1,151.5)  
Wool 1,150 -1.5 (\$1,151.5)  
Hides 1,150 -1.5 (\$1,151.5)  
Leather 1,150 -1.5 (\$1,151.5)  
Fur 1,150 -1.5 (\$1,151.5)  
Feathers 1,150 -1.5 (\$1,151.5)  
Eggs 1,150 -1.5 (\$1,151.5)  
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Cotton 1,150 -1.5 (\$1,151.5)  
Linen 1,150 -1.5 (\$1,151.5)  
Wool 1,150 -1.















**FT UNIT TRUST INFORMATION SERVICE**

STUNTER



## LONDON SHARE SERVICE

**FOREIGN BONDS & RAILS—Contd**

**Continued on next page**

[illegible]







**MINES—Continued**

## FINANCE LAND—Cont

Lot	Stack	Price	+	Net	Gr	Gr
49	Perm Eng & Minerals	62				67.7
50	Perm Eng & Minerals	54				
51	Perm Eng & Minerals	53				
52	Perm Eng & Minerals	53				
53	Perm Eng & Minerals	53				
54	Perm Eng & Minerals	53				
55	Perm Eng & Minerals	53				
56	Perm Eng & Minerals	53				
57	Perm Eng & Minerals	53				
58	Perm Eng & Minerals	53				
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95	Perm Eng & Minerals	53				
96	Perm Eng & Minerals	53				
97	Perm Eng & Minerals	53				
98	Perm Eng & Minerals	53				
99	Perm Eng & Minerals	53				
100	Perm Eng & Minerals	53				

251	Podenco NV F10.....	228	+1 <sub>2</sub>	Q14.8%
54	Do. Sub. Str. Fl. 1....	282	+4	Q14.8%
82	Bromada Trust	213	+2	5

[illegible]

Smaller Cos Inv Tst	114.2	+1	1.4
Scrap Investments	133		so.4
Equation Inv. Tst	128	+1	103

[illegible]

42	Value & Income Tst 10p	57m+1g	1.2
02	Do 64pc Cv Rd Pf	133	84.9

[illegible]

44	British Arrow	3682	-1	8.0	2.1
47	Do. Socy 95-2000	4173		9.9%	

whereas indicated, prices and net differentials are the prices and net differentials for Zone 250. Estimated price/weight ratios and cost per unit are calculated for each of the two zones where possible, and for all non-heavy buyers. P/E's are calculated on "net" distributions (weights per share being computed on profits after taxation as reported in the reports and accounts) and where possible, the net differences is calculated on "net" distributions. Covers are on "maximum" distribution; this compares gross dividend costs to gross taxation, excluding exceptional preferential but including non-preferential tax on taxable income. The basis of the calculation is adjusted to ACT of 27 per cent and allows for value of displaced tax and net gains.

**The Stock**

Information is marked thus have been adjusted to allow for rights issues for cash.

Merits since increased or resumed.

Merits since reduced, passed or delayed.

Free of non-relevant applications.

Report or report issued.

Not officially UK listed; dealings permitted under rule 335(4)(a).

199	Int'l City Hldgs.	275	+3	9.0	1.8
190	Int. Fr. Tel. Jcy. <input checked="" type="checkbox"/>	550	....	214.0	0.3
88	Investment Co.	70	+4	112.17	2.4

[illegible]

56	Oceana Cons.	83	1.1	2.1
48	Paranábe Trip	25	0.9	1.6

[illegible]

23	Wambark Intl RV	52	-----	---
28	77 Arco Eng 20p	46 1/2	---	---
24	71 Atlantic Res Int'l	37	-----	---

[illegible]

59	11 County Petal Res Sp	98			
118	W Consolidated Brimco	270	+7		

28	Dispersage	38	S&B	50	
28	Distillery	38	Tecno	50	2
28	On Dry	38	Tron EMI	50	2
28	Curry	38	Trust Houses	50	2
28	For Cons.	38	Turner Newall	50	2
28	On Union	38	Unilever	50	20
28	Guards	38	Vickers	50	5
28		38	Wellcome	50	50
28	Accidents	38	Property	50	
28		38	Brit Land	50	37
28	Met	110	Land Securities	50	38
28	Met	110	MEPC	50	32
28	Met	100	Peacoby	50	30
28		28		50	
28		30	Gils	50	
28	on Tel.	15	BOM	50	31
28	ter Side	50	Brit Petroleum	50	58
28		50	Burnell Oil	50	52
28		52	Charterhall	50	
28	roke	50	Premier	50	7
28	S & Gen	25	Shell	50	4
28		25	Tigard	50	13

146	Wintl Pet Crpn	346	-12	-
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and Bk .....	55	Lonrho .....	24
us Grenfell .....	35	Rio Tinto .....	65

A selection of Options traded is given on the  
 London Stock Exchange Report Page.







# CANADA

# CANADA

Sales	Stock	High	Low	Close	Chng	Sales	Stock	High	Low	Close	Chng	Sales	Stock	High	Low	Close	Chng	Sales	Stock	High	Low	Close	Chng
TORONTO																							
Prices at 2:30pm June 1																							
6023 ANGIA Int'l	510%	10%	10%	10 1/2	-	2255 ConfEd A	520%	20%	20%	20 1/2	-	7620 Inter City	115%	17%	16	16 1/2	+ 1/2	4225 Purolite	525%	25%	25%	25 1/2	-
6000 Aphit Pro	535%	35%	35%	35 1/2	-	2256 ConfEd B	520%	20%	20%	20 1/2	-	7621 Inter City	115%	17%	16	16 1/2	+ 1/2	4226 Purolite	525%	25%	25%	25 1/2	-
26800 Aphro E	53%	3%	3%	3 1/2	-1 1/2	6200 ConfEd C	520%	20%	20%	20 1/2	-	90125 Isaco	110%	10	10	10 1/2	-	16500 Redpath	113%	13%	13 1/2	13 1/2	-
17083 Africa N	521%	21%	21%	21 1/2	-	48243 ConfEd D	515%	15%	15%	15 1/2	-	90126 Isaco A	110%	10	10	10 1/2	-	16501 Redpath	113%	13%	13 1/2	13 1/2	-
2003 Africa N	514%	14%	14%	14 1/2	-	200 Compulog	57%	7%	7%	7 1/2	+ 1/2	90127 Isaco B	110%	10	10	10 1/2	-	16502 Redpath	113%	13%	13 1/2	13 1/2	-
100754 Afric	510%	10%	10%	10 1/2	-	6200 Commern	100	100	100	100	-	7300 Jenack	110%	10	10	10 1/2	-	16503 Redpath	113%	13%	13 1/2	13 1/2	-
200 Algen	520%	20%	20%	20 1/2	-	5161 Com Ban A	518%	18	18	18 1/2	-	1200 Kerr Adm	125%	25	25	25 1/2	-	16504 Redpath	113%	13%	13 1/2	13 1/2	-
30552 Algona St	518%	18	18	18 1/2	-	10300 Clasid B	510%	10	10	10 1/2	-	3000 Kerr Adm	125%	25	25	25 1/2	-	16505 Redpath	113%	13%	13 1/2	13 1/2	-
12300 Alameda	510%	10%	10%	10 1/2	-	1107 Cons Gas	527%	27%	27%	27 1/2	+ 1/2	11300 Labatt	125%	24	24	24 1/2	-	16506 Redpath	113%	13%	13 1/2	13 1/2	-
4630 Alco I	511%	11%	11%	11 1/2	-	725 Cons Gas	524%	24	24	24 1/2	-	3000 Kerr Adm	125%	25	25	25 1/2	-	16507 Redpath	113%	13%	13 1/2	13 1/2	-
9430 BC Sugar A	527%	26 1/2	26 1/2	26 1/2	-	1000 Devotour	375	375	375	375	-	1200 Kerr Adm	125%	25	25	25 1/2	-	16508 Redpath	113%	13%	13 1/2	13 1/2	-
1440 BGR A	511%	11%	11%	11 1/2	-	3527 Danston A	59%	9%	9%	9 1/2	-	1200 Kerr Adm	125%	25	25	25 1/2	-	16509 Redpath	113%	13%	13 1/2	13 1/2	-
25400 BP Canada	525%	25	25	25 1/2	-	5604 Danston B	51%	1%	1%	1 1/2	-	1200 Kerr Adm	125%	25	25	25 1/2	-	16510 Redpath	113%	13%	13 1/2	13 1/2	-
6000 BSCol	510%	10%	10%	10 1/2	-	1600 Devotour	375	375	375	375	-	1200 Kerr Adm	125%	25	25	25 1/2	-	16511 Redpath	113%	13%	13 1/2	13 1/2	-
51318 Bk Mont	533%	33%	33%	33 1/2	-	8200 Danston A	511%	11%	11%	11 1/2	-	1200 Kerr Adm	125%	25	25	25 1/2	-	16512 Redpath	113%	13%	13 1/2	13 1/2	-
71024 Bk Scot	518%	17 1/2	17 1/2	17 1/2	-	4300 Danston B	511%	11%	11%	11 1/2	-	1200 Kerr Adm	125%	25	25	25 1/2	-	16513 Redpath	113%	13%	13 1/2	13 1/2	-
1050989 Bell Can	542%	42 1/2	42 1/2	42 1/2	-	9430 Danston C	525%	25	25	25 1/2	-	1200 Kerr Adm	125%	25	25	25 1/2	-	16514 Redpath	113%	13%	13 1/2	13 1/2	-
95456 Bow Valt	516%	16 1/2	16 1/2	16 1/2	-	102551 Dome Mite	518%	18	18	18 1/2	-	1200 Kerr Adm	125%	25	25	25 1/2	-	16515 Redpath	113%	13%	13 1/2	13 1/2	-
1000 Bralorne	190	185	190	190	-	145681 Dome Pete	520%	20	20	20 1/2	-	36163 Muri Res	37%	35	35	35 1/2	-	19000 Sherritt	55%	54	54	54 1/2	-
30560 Brimalest	524 1/2	24 1/2	24 1/2	24 1/2	-	1753 Dn Pnt A	517%	17 1/2	17 1/2	17 1/2	-	100000 Sherritt	55%	54	54	54 1/2	-	7375 Sherritt	55%	54	54	54 1/2	-
12200 Brumet	534 1/2	34 1/2	34 1/2	34 1/2	-	6930 Domest	520%	20	20	20 1/2	-	100000 Sherritt	55%	54	54	54 1/2	-	7375 Sherritt	55%	54	54	54 1/2	-
72500 Brumet	534 1/2	34 1/2	34 1/2	34 1/2	-	3300 Donperue	534 1/2	34 1/2	34 1/2	34 1/2	-	100000 Sherritt	55%	54	54	54 1/2	-	7375 Sherritt	55%	54	54	54 1/2	-
446 Brumet	515%	15	15	15 1/2	-	1753 Dn Pnt A	517%	17 1/2	17 1/2	17 1/2	-	100000 Sherritt	55%	54	54	54 1/2	-	7375 Sherritt	55%	54	54	54 1/2	-
846 Brumet	515%	15	15	15 1/2	-	12625 Etn A	516 1/2	15 1/2	15 1/2	15 1/2	-	100000 Sherritt	55%	54	54	54 1/2	-	7375 Sherritt	55%	54	54	54 1/2	-
14500 BC Res	123	120	123	123	+ 3	800 E-L Fm	50	50	50	50	-	100000 Sherritt	55%	54	54	54 1/2	-	7375 Sherritt	55%	54	54	54 1/2	-
13700 BC Phone	533 1/2	33 1/2	33 1/2	33 1/2	-	1000 E-L Fm	50	50	50	50	-	100000 Sherritt	55%	54	54	54 1/2	-	7375 Sherritt	55%	54	54	54 1/2	-
10250 Brumet	515%	15	15	15 1/2	-	1076 Etn B	508 1/2	108 1/2	108 1/2	108 1/2	-	100000 Sherritt	55%	54	54	54 1/2	-	7375 Sherritt	55%	54	54	54 1/2	-
13820 CAE	511 1/2	11 1/2	11 1/2	11 1/2	-	100 FCA Int	516 1/2	16 1/2	16 1/2	16 1/2	-	100000 Sherritt	55%	54	54	54 1/2	-	7375 Sherritt	55%	54	54	54 1/2	-
10340 CCL B	513 1/2	13 1/2	13 1/2	13 1/2	-	11040 Flandry	513 1/2	13 1/2	13 1/2	13 1/2	-	100000 Sherritt	55%	54	54	54 1/2	-	7375 Sherritt	55%	54	54	54 1/2	-
10200 CFC	520%	20	20	20 1/2	-	7846 Fed Ind A	516 1/2	16 1/2	16 1/2	16 1/2	-	100000 Sherritt	55%	54	54	54 1/2	-	7375 Sherritt	55%	54	54	54 1/2	-
10200 CFC	520%	20	20	20 1/2	-	8000 Fed Plan	511 1/2	11 1/2	11 1/2	11 1/2	-	100000 Sherritt	55%	54	54	54 1/2	-	7375 Sherritt	55%	54	54	54 1/2	-
10200 CFC	520%	20	20	20 1/2	-	500 City Pk	517 1/2	17 1/2	17 1/2	17 1/2	-	100000 Sherritt	55%	54	54	54 1/2	-	7375 Sherritt	55%	54	54	54 1/2	-
10200 CFC	520%	20	20	20 1/2	-	110144 Gandell	511 1/2	11 1/2	11 1/2	11 1/2	-	100000 Sherritt	55%	54	54	54 1/2	-	7375 Sherritt	55%	54	54	54 1/2	-
10200 CFC	520%	20	20	20 1/2	-	14460 Gasc Comp	270	260	270	270	+ 10	100000 Sherritt	55%	54	54	54 1/2	-	7375 Sherritt	55%	54	54	54 1/2	-
10200 CFC	520%	20	20	20 1/2	-	8252 Gende	517 1/2	17 1/2	17 1/2	17 1/2	-	100000 Sherritt	55%	54	54	54 1/2	-	7375 Sherritt	55%	54	54	54 1/2	-
10200 CFC	520%	20	20	20 1/2	-	220 Gend Vt	522 1/2	22 1/2	22 1/2	22 1/2	-	100000 Sherritt	55%	54	54	54 1/2	-	7375 Sherritt	55%	54	54	54 1/2	-
10200 CFC	520%	20	20	20 1/2	-	1000 Gend Vt	510	10	10	10 1/2	-	100000 Sherritt	55%	54	54	54 1/2	-	7375 Sherritt	55%	54	54	54 1/2	-
10200 CFC	520%	20	20	20 1/2	-	14565 Gend Vt	511	10	10	10 1/2	-	100000 Sherritt	55%	54	54	54 1/2	-	7375 Sherritt	55%	54	54	54 1/2	-
10200 CFC	520%	20	20	20 1/2	-	2050 Grafton A	515 1/2	15 1/2	15 1/2	15 1/2	-	100000 Sherritt	55%	54	54	54 1/2	-	7375 Sherritt	55%	54	54	54 1/2	-
10200 CFC	520%	20	20	20 1/2	-	1100 Greyhnd	527 1/2	27 1/2	27 1/2	27 1/2	-	100000 Sherritt	55%	54	54	54 1/2	-	7375 Sherritt	55%	54	54	54 1/2	-
10200 CFC	520%	20	20	20 1/2	-	4230 GuPnt A	517 1/2	17 1/2	17 1/2	17 1/2	-	100000 Sherritt	55%	54	54	54 1/2	-	7375 Sherritt	55%	54	54	54 1/2	-
10200 CFC	520%	20	20	20 1/2	-	16574 GuPnt B	528	28	28	28 1/2	-	100000 Sherritt	55%	54	54	54 1/2	-	7375 Sherritt	55%	54	54	54 1/2	-
10200 CFC	520%	20	20	20 1/2	-	1400 Hays	517 1/2	17 1/2	17 1/2	17 1/2	-	100000 Sherritt	55%	54	54	54 1/2	-	7375 Sherritt	55%	54	54	54 1/2	-
10200 CFC	520%	20	20	20 1/2	-	1228 Hayes D	511 1/2	11 1/2	11 1/2	11 1/2	-	100000 Sherritt	55%	54	54	54 1/2	-	7375 Sherritt	55%	54	54	54 1/2	-
10200 CFC	520%	20	20	20 1/2	-	4405 Hays Int	525 1/2	25 1/2	25 1/2	25 1/2	-	100000 Sherritt	55%	54	54	54 1/2	-	7375 Sherritt	55%	54	54	54 1/2	-
10200 CFC	520%	20	20	20 1/2	-	1352 Hays Int	527 1/2	27 1/2	27 1/2	27 1/2	-	100000 Sherritt	55%	54	54	54 1/2	-	7375 Sherritt	55%	54	54	54 1/2	-
10200 CFC	520%	20	20	20 1/2	-	7641 H Bays Co	525 1/2	25 1/2	25 1/2	25 1/2	-	100000 Sherritt	55%	54	54	54 1/2	-	7375 Sherritt	55%	54	54	54 1/2	-
10200 CFC	520%	20	20	20 1/2	-	17190 Imasco	527 1/2	27 1/2	27 1/2	27 1/2	-	100000 Sherritt	55%	54	54	54 1/2	-	7375 Sherritt	55%	54	54	54 1/2	-
10200 CFC	520%	20	20	20 1/2	-	13322 Int Oil A	527 1/2	27 1/2	27 1/2	27 1/2	-	100000 Sherritt	55%	54	54	54 1/2	-	7375 Sherritt	55%	54	54	54 1/2	-
10200 CFC	520%	20	20	20 1/2	-	114425 Int Oil	523 1/2	23 1/2	23 1/2	23 1/2	-	100000 Sherritt	55%	54	54	54 1/2	-	7375 Sherritt	55%	54	54	54 1/2	-
10200 CFC	520%	20	20	20 1/2	-	24610 Int Oil B	527 1/2	27 1/2	27 1/2	27 1/2	-	100000 Sherritt	55%	54	54	54 1/2	-	7375 Sherritt	55%	54	54	54 1/2	-
10200 CFC	520%	20	20	20 1/2	-	1700 Intopac	514 1/2	14 1/2	14 1/2	14 1/2	-	100000 Sherritt	55%	54	54	54 1/2	-	7375 Sherritt	55%	54	54	54 1/2	-
10200 CFC	520%	20	20	20 1/2	-	11100 Inopac	50 1/2	8 1/2	8 1/2	8 1/2	-	100000 Sherritt	55%	54	54	54 1/2	-	7375 Sherritt	55%	54	54	54 1/2	-
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**Nasdaq national market, 2:30pm prices**

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### Chief price changes

RISSES:		Derit Stamping		ICI		TR Technol	
Amersham Int	619 +22	Dowdy	268 +12	Kwik Fit	203 +15	Tarmac	584 +19
BAT Inds	568 +16	Elliot	834 +12	Kynoch (G&G)	315 +27	The Scientist	300 +14
Bearing	570 +26	FKI	375 +25	Lamont Holdings	310 +25	Utd News	469 +19
Bl Circle	574 +17	F&M (M)	247 +7	Land Seals	524 +18	Val Pollen	290 +30
Brit Gas	174 +9	GT Magnat	138 +13	Lucas Inds	603 +20	FALLS:	
BSC	375 +32	Goodh Frnt	220 +20	Pow Duffryn	412 +24	IBL	85 -40

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## NEW YORK STOCK EXCHANGE COMPOSITE PRICES

Continued on Page 42



Stock	Dr	P/E	5 Yr	10 Yr	Hgh	Low	Chn	Drp	Stock	Dr	P/E	5 Yr	10 Yr	Hgh	Low	Chn	Drp	Stock	Dr	P/E	5 Yr	10 Yr	Hgh	Low	Chn	Drp	Stock	Dr	P/E	5 Yr	10 Yr	Hgh	Low	Chn	Drp
ACIaf	1.20	11	15%	16%	16%	16%	16%	16%	Dakod	1.07	1757	17-16	1%	17-16	1%	1%	1%	Intell	Int	198	3%	4%	4%	4%	4%	4%	Presid	.08	1	5%	5%	5%	5%	5%	
AT&T	726	21%	20%	20%	20%	20%	20%	20%	Dillard	.12	18	15%	40%	41%	42%	43%	44%	Intell	Int	198	3%	4%	4%	4%	4%	4%	Presid	.08	1	5%	5%	5%	5%	5%	
Amchem	.06	30	3%	3%	3%	3%	3%	3%	Dion	204	1	18-18	15-16	15-16	15-16	15-16	15-16	Jacobs	33	5	5%	5%	5%	5%	5%	Presid	.08	1	5%	5%	5%	5%	5%		
Amgen	185	21%	20%	20%	20%	20%	20%	20%	Domin	50	1	18-18	15-16	15-16	15-16	15-16	15-16	John	.77	12	14	14	14	14	14	Presid	.08	1	5%	5%	5%	5%	5%		
Alcoa	11	5%	5%	5%	5%	5%	5%	5%	Domin	30	13	20	15	15	15	15	15	John	.77	12	14	14	14	14	14	Presid	.08	1	5%	5%	5%	5%	5%		
Alcoa	11	5%	5%	5%	5%	5%	5%	5%	Domin	30	13	20	15	15	15	15	15	John	.77	12	14	14	14	14	14	Presid	.08	1	5%	5%	5%	5%	5%		
Alcoa	11	5%	5%	5%	5%	5%	5%	5%	Domin	30	13	20	15	15	15	15	15	John	.77	12	14	14	14	14	14	Presid	.08	1	5%	5%	5%	5%	5%		
Alcoa	11	5%	5%	5%	5%	5%	5%	5%	Domin	30	13	20	15	15	15	15	15	John	.77	12	14	14	14	14	14	Presid	.08	1	5%	5%	5%	5%	5%		
Alcoa	11	5%	5%	5%	5%	5%	5%	5%	Domin	30	13	20	15	15	15	15	15	John	.77	12	14	14	14	14	14	Presid	.08	1	5%	5%	5%	5%	5%		
Alcoa	11	5%	5%	5%	5%	5%	5%	5%	Domin	30	13	20	15	15	15	15	15	John	.77	12	14	14	14	14	14	Presid	.08	1	5%	5%	5%	5%	5%		
Alcoa	11	5%	5%	5%	5%	5%	5%	5%	Domin	30	13	20	15	15	15	15	15	John	.77	12	14	14	14	14	14	Presid	.08	1	5%	5%	5%	5%	5%		
Alcoa	11	5%	5%	5%	5%	5%	5%	5%	Domin	30	13	20	15	15	15	15	15	John	.77	12	14	14	14	14	14	Presid	.08	1	5%	5%	5%	5%	5%		
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Alcoa	11	5%	5%	5%	5%	5%	5%	5%	Domin	30	13	20	15	15	15	15	15	John	.77	12	14	14	14	14	14	Presid	.08	1	5%	5%	5%	5%	5%		
Alcoa	11	5%	5%	5%	5%	5%	5%	5%	Domin	30	13	20	15	15	15	15	15	John	.77	12	14	14	14	14	14	Presid	.08	1	5%	5%	5%	5%	5%		
Alcoa	11	5%	5%	5%	5%	5%	5%	5%	Domin	30	13	20	15	15	15	15	15	John	.77	12	14	14	14	14	14	Presid	.08	1	5%	5%	5%	5%	5%		
Alcoa	11	5%	5%	5%	5%	5%	5%	5%	Domin	30	13	20	15	15	15	15	15	John	.77	12	14	14	14	14	14	Presid	.08	1	5%	5%	5%	5%	5%		
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Alcoa	11	5%	5%	5%	5%	5%	5%	5%	Domin	30	13	20	15	15	15	15	15	John	.77	12	14	14	14	14	14	Presid	.08	1	5%	5%	5%	5%	5%		
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Alcoa	11	5%	5%	5%	5%	5%	5%	5%	Domin	30	13	20	15	15	15	15	15	John	.77	12	14	14	14	14	14	Presid	.08	1	5%	5%	5%	5%	5%		
Alcoa	11	5%	5%	5%	5%	5%	5%	5%	Domin	30	13	20	15	15	15	15	15	John	.77	12	14	14	14	14	14	Presid	.08	1	5%	5%	5%	5%	5%		
Alcoa	11	5%	5%	5%	5%	5%	5%	5%	Domin	30	13	20	15	15	15	15	15	John	.77	12	14	14	14	14	14	Presid	.08	1	5%	5%	5%	5%	5%		
Alcoa	11	5%	5%	5%	5%	5%	5%	5%	Domin	30	13	20	15	15	15	15	15	John	.77	12	14	14	14	14	14	Presid	.08	1	5%	5%	5%	5%	5%		
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Alcoa	11	5%	5%	5%	5%	5%	5%	5%	Domin	30	13	20	15	15	15	15	15	John	.77	12	14	14	14	14	14	Presid	.08	1	5%	5%	5%	5%	5%		
Alcoa	11	5%	5%	5%	5%	5%	5%	5%	Domin	30	13	20	15	15	15	15	15	John	.77	12	14	14	14	14	14	Presid	.08	1	5%	5%	5%	5%	5%		
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Alcoa	11	5%	5%	5%	5%	5%	5%	5%	Domin	30	13	20	15	15	15	15	15	John	.77	12	14	14	14	14	14	Presid	.08	1	5%	5%	5%	5%	5%		
Alcoa	11	5%	5%	5%	5%	5%	5%	5%	Domin	30	13	20	15	15	15	15	15	John	.77	12	14	14	14	14	14	Presid	.08	1	5%	5%	5%	5%	5%		
Alcoa	11	5%	5%	5%																															

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Stock	Sales (Hndls)	High	Low	Last	Chng	Stock	Sales (Hndls)	High	Low	Last	Chng	Stock	Sales (Hndls)	High	Low	Last	Chng	Stock	Sales (Hndls)	High	Low	Last	Chng	
AAC	17	13	22	22	22	Chivco	48	159	211	207	211	PAALMI	5	194	417	385	417	+ 1	KLA	48	48	30	174	189
AAK	25	317	13	128	127	ChePac	22	585	12	116	116	PAATN	1	265	28	28	28	28	KLK	48	48	30	174	189
AAK	19	40	10	10	10	Cherco	29	1044	182	182	182	PAATN	1	265	28	28	28	28	KLK	48	48	30	174	189
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**Continued on Page 4**



## FINANCIAL TIMES

## WORLD STOCK MARKETS

## AMERICA

## Stronger dollar brings only modest gains

## WALL STREET

UNIMPRESSED by the strength of bonds and dollars, Wall Street stock markets posted only modest gains on this volume yesterday, writes Roderick Oram in New York.

The continuing rise of the dollar in foreign exchange markets encouraged further retail buying of bonds which helped push up prices almost a point.

Stock markets were more subdued, however. At 2pm the Dow Jones industrial average was up 10.77 points at 2,302.34 with broader market indices following suit.

New York exchange volume was moderate, with less than 180m shares traded by early afternoon. Institutional buying was light and most of the action revolved around biotechnology and takeover stocks.

Genentech fell 11 1/2% to \$38 3/4 on heavy volume after regulatory approval of its heart drug Activase was delayed. Lubrizol, which has a 9 per cent stake in Genentech, dropped 2 1/2% to \$37 1/2.

The news prompted many analysts to downgrade their recommendation for the sector and most biotechnology stocks were sharply marked down. Biogen fell 8 1/2%, Celus lost \$2 to \$29 1/2, Chiron fell 2 1/2% to \$31, Amgen lost 2 1/2% to \$37 1/2 and Immunex gave up 5 1/2% to \$22 1/2.

Takeover and recapitalisation stocks continued to be the most active. Uccel soared 12 1/2% to \$44. The computer software group agreed to a merger with Computer Associates International, off 5 1/2% to \$27 1/2, on the basis of one of its shares for 1.69 of Computer Associates, valuing the target stock at about \$46 1/2.

Hospital Corporation of America gained \$1 to \$47 1/2 following an agreement to sell 104 hospitals to senior managers and employees for \$1.8m.

Allergis fell 3 1/2% to \$86. Coniston Partners, which holds a 13 per cent stake, said it would continue to fight for the break-up of the travel group instead of the \$3.5bn recapitalisation proposed by management.

Spectra-Physics slipped 3 1/2% to \$32 1/2. The laser maker rejected a \$32 a share takeover offer from Cbe-Gelco.

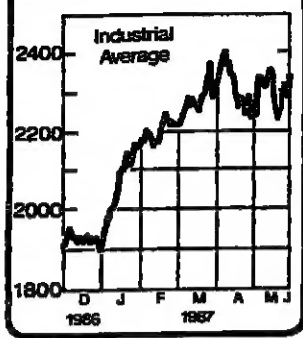
Harcourt Brace Jovanovich fell 3 1/2% to \$54 1/2. Mr Robert Maxwell, the British publisher, said he would sue to block the US publishing group's \$3bn recapitalisation which threatened Mr Maxwell's \$4 a share takeover offer.

E. F. Hutton added 1 1/2% to \$38 1/2 following newspaper reports that First Boston, a competing Wall Street firm, had taken a 4.9 per cent stake in it. First Boston added 5 1/2% to \$45 1/2.

Crazy Eddie rose 5 1/2% to \$8 1/2. The New York electrical goods retailer received a \$1 a share takeover offer from Entertainment Marketing, up 5 1/2% to \$9 1/2. The offer topped an earlier one of \$1 a share from Mr Eddie Antar, Crazy Eddie's chairman, and other investors.

Pay 'N' Pak Stores fell 1 1/2% to \$1 1/2.

## DOW JONES



15 1/2%. The retail building materials supply chain said it received two unsolicited offers to buy it for \$20 a share in cash and securities.

Pizza Inn, a major fast food chain, rose 3 1/2% to \$14. An investment group including Reliance Financial Services, the main corporate vehicle of Mr Saul Steinberg, a raider, disclosed a 5.02 per cent stake.

Hi-Shear gained 3 1/2% to \$22 1/2. It agreed to a \$23 1/2 takeover offer from a division of Clair which added 3 1/2% to \$7 1/2.

Credit markets were buoyed by the dollar's new strength and overseas buying of Treasury securities. Prices of long dated Treasuries opened in New York up almost a point before scattered profit taking trimmed some of the gains.

Prices picked up again in early afternoon to put the 8.75 per cent benchmark Treasury long bond up 7/8 of a point at 102 1/2 yielding 8.55 per cent.

The markets' tone was also helped by newspaper reports indicating Mr Paul Volcker would be given another term as chairman of the Federal Reserve Board if he wanted it. Uncertainty over the future of Mr Volcker, the markets' strongly preferred candidate for the job, has given markets some sudden sinking spells in recent weeks.

## CANADA

A SLUMP in gold shares and resource issues led Toronto prices lower on the board.

The gold index fell more than 200 to 1,093.1 as the US dollar strengthened and world bullion prices softened. Among lower golds, Law Minerals gave up 3 1/2% to \$42 1/2, American Barrick Resources 3 1/2% to \$47 1/2 and Echo Bay Mines 3 1/2% to \$47 1/2. Dome Mines slid 3 1/2% to \$47 1/2 and Hemlo Gold 3 1/2% to \$47 1/2.

Non-precious metals joined the retreat, with Inco, the nickel stock, 3 1/2% lower at \$32 1/2, Falconbridge 3 1/2% lower at \$32 1/2, and Alcan fell 3 1/2% to \$33 1/2.

Oils were mixed as Shell Canada added 3 1/2% to \$44 1/2, but Gulf slipped 3 1/2% to \$42 1/2.

Montreal and Vancouver both fell.

## Roderick Oram on a reversal for a heart drug

## Genentech price takes a tumble

THE SHARE PRICE of Genentech, a leading US biotechnology company, plunged more than 20 per cent yesterday after it suffered a major setback on the road to regulatory approval for a genetically engineered drug, potentially its first big volume product.

Activase, which the California company developed for treating heart attack victims, is widely seen as biotechnology's first product capable of generating more than \$1bn of sales. Genentech, founded in 1976, had sales of \$127m last year.

Its stock fell more than \$13 shortly after the opening yesterday before recovering partially to a loss of \$11 1/2 at 3:30p. By early afternoon more than 10 per cent of its shares had changed hands.

The drug, a tissue plasminogen activator (TPA), dissolves bloodclots which adhere to fat clogging the arteries of heart attack victims. An advisory panel of the Food and Drug Administration failed on Friday to recommend that the FDA approve Activase at this stage.

There is no doubt of its superior ability over existing drugs to dissolve clots, but Genentech's clinical data compiled so far failed to convince the committee that Activase's action prolonged the lives of heart attack victims.

Some members of the panel, drawn from the medical profession, were publicly critical of the decision not to recommend approval on current data.

A Genentech official said: "We'll be talking with the FDA over the next few weeks over what data they're looking for." The results of further clinical trials already underway may be sufficient, she added.

Genentech, which has often in the past underestimated the time needed to get regulatory approval, was reluctant to say when it hopes Activase will be passed. Analysts suggest that the final go-ahead may be postponed from this summer to next spring.

The company had been stockpiling the drug and marketing it energetically. Its 75-strong sales force will devote more time during the delay to promoting another of its biotechnology drugs, Protropin, which is used to treat a form of growth retardation.

Tony Jackson in London adds: The news on TPA boosted shares in Beecham, the UK drug company whose new drug Embrace is a rival to Genentech's product. Beecham said it expected to seek approval for Embrace in the US in the last quarter of this year, though it could take a further year to reach the market. The share price was up 2 1/2p at 570p.

## EUROPE

## Frankfurt pulls ahead as cars provide the spark

DESPITE the support offered by the firmer dollar, demand for equities was mostly lacklustre across Europe and buying was further dulled in some bourses by domestic factors.

Frankfurt rose as the dollar hit its highest level against the D-Mark for almost two months. The mid-session Commerzbank index added 28 to 1,787.5.

Exporters headed the advance. Porsche, which sells more than half of its luxury cars in the US, added a further DM 20.00 to DM 940.00, taking its rise since last Wednesday to nearly DM 90.00. Daimler picked up DM 15.20 to DM 1,025 and BMW DM 5.90 to DM 617.00.

VW also gained, by DM 4.50 to DM 383.50, despite rumours, later shown unfounded, that Deutsche Bank had decided to vote against a motion at next month's annual meeting which would amount to a vote of confidence in the group's board.

Banks and chemicals consolidated recent gains. Deutsche Bank, reported to be planning the purchase of Spain's Banco Comercial Transatlantico, was the busiest and added DM 6.50 to DM 610.00. Dresdner climbed DM 1.00 to DM 315.00.

Metals processor Degussa said its profits in the six months to March 31 fell below the figure for the same period last year and its share price dropped DM 8.00 to DM 501.

Government bonds fell sharply on selling following the dollar's rise. The Bundesbank bought DM 142.2m of paper after buying DM 123.4m on Friday.

Zurich dipped in dull, featureless trading apparently unaffected by the dollar's rise. Dealers said the fact that the market had recently absorbed several large capital increases also stalled buying.

Pharmaceuticals, however, brightened following news that Hoffmann-La Roche has won approval from the US Government to

## Opinion polls sweep London to new high

OPINION POLLS favourable to the Conservatives were once again the major factor pushing London equities to new peaks as investors sought stocks of recently privatised companies and issues likely to attract foreign interest after the election.

A bullish survey of business opinion also helped, as did US demand for British drug shares following the setback for Genentech in New York.

The FT-SE 100 index closed at a new peak of 2,228.2, a gain of 25.2, and the FT Ordinary index jumped 18.6 to 1,738.7, also an all-time high.

Government bonds started higher but fell back later. Details, Page 46

develop a new AIDS drug. Roche "baby" shares climbed SF 100 to SF 12.875. Ciba-Geigy bearer picked up SF 10 to SF 3.175 in the liststream.

Brussels closed mixed after a quiet session peppered with some foreign interest following the apparent solution to the country's language crisis. The Brussels SE index shed 13.50 from Wednesday's pre-holiday close to 4,538.72.

In an otherwise steady holdings sector, Reserve fell Bfr 50 to Bfr 3,500. Electrified sparked among utility utilities with a Bfr 100 rise to Bfr 7,300 and blue chip Petrofina added Bfr 100 to Bfr 11,000.

Chemical Solvay put on Bfr 125 to Bfr 10,800 amid the chairman's forecast of higher first half earnings.

Paris fell gently in light trade interrupted briefly by a demonstration by medical students.

The market suffered from fears

that higher capital gains tax in the Government's new tax package would hurt domestic demand for shares, but was also cheered by the firmer dollar's implications for French exports.

Peugeot dipped Ffr 20 to Ffr 1,575 amid news it had boosted its share offer to 2.87bn from 2.67bn shares through a bigger foreign placement.

Milan retreated across the board in thin trade clouded by uncertainty over the forthcoming parliamentary elections and the spectre of a capital gains tax on share transactions, raised at the weekend by the chairman of the Bank of Italy.

Amsterdam finished mixed with the dollar's strength drawing buyers almost exclusively to international blue chips. The ANP-CBS general index, which is weighted strongly towards the internationals, added 1.7 to 288.7.

Madrid rose across the board in a technical rally from last week's heavy profit-taking. The general index rose 2.45 to 231.33.

Stockholm was steady in dull trade reflecting the rise in interest rates and uncertainty over the high level of share prices.

Oso was also steady.

## ASIA

## Further record follows demand for large-capitals

## TOKYO

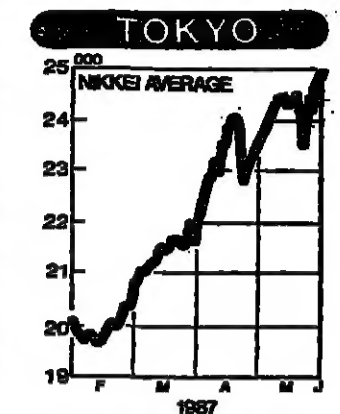
THE Nikkei average closed at its third consecutive record in Tokyo yesterday after having temporarily broken 25,000 for the first time, writes Shigeo Nishizaki of Jiji Press.

Warmed over the high price level trimmed the earlier advance. The index, which climbed 195 to 25,097 in the morning, closed 91.19 higher at 24,992.78. Volume was 1.5bn shares, a dip from 1.5bn on Friday. Gains outpaced losers 583 to 384, with 124 issues unchanged.

There were few new factors, apart from the start of a new month, to encourage buying. Large-capitalisation stocks and shipbuilders were popular, but buying failed to match the levels earlier this year when institutions poured funds into these stocks to reap capital gains. An official at a major brokerage house said institutional buying was little increased.

The rise in defence spending for the current year spurred investors

noon, reflecting the drop of the yen against the dollar. Matsushita Electric Industrial went up Y20 to Y1,900 and Victor Co of Japan (JVC) Y70 to Y2,680, while Kyocera climbed Y170 to Y3,040. Hitachi advanced Y40 to Y1,080 on a newspaper report of its tie-up with Unisys of the US on the



## SINGAPORE

THE STEADY pace of last week accelerated into a surge of buying by local and foreign investors in Singapore yesterday, driving the Straits Times industrial index 20.33 up from Thursday's peak to a record 1,240.50.

Turnover also picked up by 50.2m shares to 86.2m as lower priced issues and a number of key blue chips attracted strong buying interest and a shortage of scrip helped push prices higher.

Banks performed well with OCBC 25 cents ahead at \$89.75, Malayan Banking up 20 cents at \$87.95 and UOB rising 15 cents to \$88.80.

Plantations also saw gains as Consolidated Plantations added 8 cents to \$83.24. Blue chip gains included a 20 cent rise for Singapore Airlines to \$84.20 and Sime Darby's 8 cent advance to \$83.52.

Among the second-liners, Faber Marin added 6 cents to 81 cents on 3.2m shares traded and Arab-Malaysia Development rose 6 cents to \$81.32 on 2.3m shares.

## AUSTRALIA

INTEREST in selected industrial shares led Sydney higher as resource stocks traded in lacklustre fashion following the weekend dip in billion prices.

The All Ordinaries index added 6.1 to 1,776.7 and the All Industrials 21.1 to 2,573.0 but the All Resources fell back 5.4 to 1,160.8. Turnover was thin at 83m shares as many foreign investors stayed away.

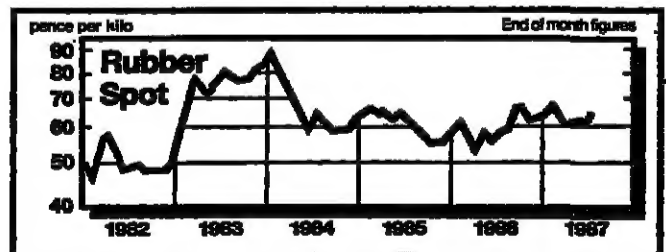
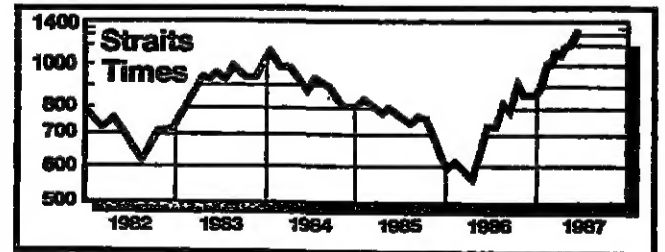
Monier, the building products group, saw 2.2m more shares change hands, with brokers Potts West Trumbull the principal buyer, apparently on behalf of Equicourt Tasman. The share price was steady at \$4.15.

Among industrials, News Corp climbed 60 cents to \$518.50, while banks Westpac and ANZ gained 13 cents and 8 cents to \$56.06 and \$54.14, respectively.

Retailer Coles Myer, which is floating off its clothing subsidiary Country Road as a separate company, was one of the losers, dipping 16 cents to \$58.84. BHP, the market leader, eased 2 cents to \$59.50.

Hong Kong and Johannesburg were closed for holidays.

## KEY MARKET MONITORS



STOCK MARKET INDICES			
	June 1	Previous Year	Change
NEW YORK			
DJ Industrials	2,302.34	2,291.57	1,876.71
DJ Transport	976.94	976.58	803.37
DJ Utilities	196.88	196.51	189.62
S&P Comp.	291.89	290.10	247.26

LONDON FT			
	June 1	Previous Year	Change
Ord	1,730.7	1,712.1	1,316.4
SE 100	2,228.2	2,203.0	1,802.8
Air-share	1,108.00	1,097.29	767.18
A 500	1,241.29	1,236.42	869.08
Gold mines	378.8	380.5	215.3
A Long gilt	8.55	8.54	9.26
World Act. Ind.	128.18	129.18	86.87

TOKYO			
	June 1	Previous Year	Change
Nikkei	24,992.78	24,772.29	16,070.8
Tokyo SE	2,158.68	2,134.73	1,200.11

AUSTRALIA			
	June 1	Previous Year	Change
All Ord.	1,776.2	1,770.8	1,341.0
Metals & Mins.	1,113.8	1,124.0	521.5

AUSTRIA			
	June 1	Previous Year	Change
Credit Aktien	184.56	184.32	232.28

BELGIUM SE			
	June 1	Previous Year	Change
	4,533.70		(c) 3,617.11

CANADA			
	June 1	Previous Year	Change
Toronto	2,658.1	2,700.1	2,187.0
Met. & Mins.	3,662.5	3,685.30	3,121.9
Composite	1,831.82	1,840.07	1,586.47

DENMARK SE			
	June 1	Previous Year	Change
SE	204.00		224.56

FRANCE			
	June 1	Previous Year	Change
CAC Gen	430.40	431.80	354.6
Ind. Tendence	107.00	107.40	83.54

WEST GERMANY			
	June 1	Previous Year	Change
FAZ-Aktien	599.76	590.90	651.42
Commerzbank	1,767.80	1,759.60	1,689.0

HONG KONG			
	June 1	Previous Year	Change
Hang Seng	2,918.70	1,787.58	

ITALY			
	June 1	Previous Year	Change
Banca Com.	698.77	694.82	782.80

NETHERLANDS			
	June 1	Previous Year	Change
ANP CBS	288.70	287.00	286.2
Ind	251.50	251.20	280.2

NORWAY			
	June 1	Previous Year	Change
Osto GE	423.56	424.69	347.15

SINGAPORE			
	June 1	Previous Year	Change
Straits Times	1,240.50		(c) 658.00

SOUTH AFRICA			
	June 1	Previous Year	Change
Gold	2,111.00	1,142.1	
Industrials	1,878.00	1,157.7	

SPAIN			
	June 1	Previous Year	Change
Madrid SE	231.33	228.85	180.04

SWEDEN			
	June 1	Previous Year	Change
J & P	2,832.80	2,851.60	2,373.78

SWITZERLAND			
	June 1	Previous Year	Change
Sales Bank Ind	580.40	587.10	571.1

COMMODITIES (London)			
	June 1	Previous Year	Change
Silver (spot)	452.15p	472.75p	
Copper (cash)	592.50	592.00	
Coffee (July)	1,340.00	1,326.00	
Oil ( Brent)	518.65	518.65	

GOLD (\$/oz)			
	June 1	Previous Year	Change
London	\$444.50	\$451.75	
Zurich	\$444.75	\$451.25	
Paris (Baring)	\$444.40	\$450.14	
Luxembourg	\$444.85	\$451.50	
New York (August)	\$448.70	\$455.00	

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